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ABSTRACT

The question of how to deal with or prevent campus turmoil has not been adequately answered in the past, partly because conflict situations arise so unpredictably, making careful research difficult. A simulation study was conducted at a relatively conservative campus to try to answer in detail questions about the reactions of ordinary students to campus unrest. Four politically neutral students at a time took the role of an ad hoc committee of moderate students during a three-day period turmoil. The students were provided with pre-programed television news reports of either increasing or decreasing violence, telephone access to what they thought were other groups of students taking the roles of the administration, radical students, or conservative students. They also made decisions on courses of action for their group, which they believed were used in a computer determination of outcomes. Detailed measures of attributions to the various factions of causality, responsibility, competence, strength, activity, hostility, aggression, and support were obtained after each of the six simulation time periods. Perhaps the most interesting result obtained was that the administration was more likely than the radicals to gain political stature with moderate students if the university remained open until conflict ceased. (RH)

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SIMULATION AS A TECHNIQUE FOR ANALYZING CAMPUS UNREST

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INTRODUCTION

In the past decade and one-half, the image of the American college campus has developed from one of placid, sometimes apathetic scholarship and adolescent fun to one of seething turmoil, burning idealism, and potential violent explosiveness. Students of the 1950's were seen as diligently preparing themselves to be accepted into the "Establishment"; the students of today are, at times, seen as the very real enemy of that same "Establishment." Obviously, these views are extremes: colleges of the '50s had their share of radicals (e.g., the Labor Youth League), and the majority of today's students are not violently motivated to destroy the societal structure. Yet it is equally apparent that a change has taken place, in both the degree and the content of student activism. Not only does such activity appear to be more prevalent and destructive than in the preceding decade, but it primarily differs in its highly political and national orientation, as opposed to earlier emphasis on internal affairs of a particular college or university (Gusfield, 1971). The analytical questions of who are activists and why this period of time is different from others are questions heavily emphasized in recent literature. Yet these types of questions may not be as important in the midst of the crisis period as the more pragmatic question of how to deal with the problems of the here-and-now. Analysis of historical change and development should perhaps be postponed, or at least combined with an approach which can provide answers to questions of immediate priority.

In 1968, an article in Science called upon the behavioral sciences to conduct national investigation into the dynamics of students' protest. The author pointed to the nature of communication and to behavioral and social processes in student protest movements as the key issues needing further investigation. Behavioral scientists have applied themselves to these problems to some degree, but, unfortunately, their approach has often been historical, descriptive, and limited in scope (e.g., personality characteristics of radicals) rather than experimental and broad. The descriptive approach leads to inconsistent or fragmentary findings and to a lack of results which can be readily transformed into implementable, action-oriented solutions to existing or potential problems. We are not hereby minimizing the importance of such findings; we are merely pointing out that they are not sufficient for problem-solving application by themselves.

It appears that we need a method for investigating the phenomena of student activism and campus unrest, a method which (1) takes into account various aspects of students' unrest that can be determined through observation and description, and (2) which goes one step further, allowing us to determine specific cause-effect relationships. Only the knowledge of such relationships can answer the question of how to prevent or deal with conditions of destructive student unrest.

Before proceeding to a discussion of the research method used in the current project, it may be valuable to present a review of some of the previous work on student protest and unrest. For this purpose, we will primarily emphasize the work of behavioral scientists, but publications

by several "popular" writers will be included. Previous work on student protest and unrest can be roughly divided into three major categories, or types of approaches:

(1) Theory and/or speculation. Discussions of the problems of student unrest, sometimes based on the work of others, which attempt to draw conclusions about the causes and cures of this phenomenon, often with some basis in empirically derived fact.

(2) Historical and/or case history. Descriptions of events which have taken place in the past, with attempts to draw conclusions about the phenomenon from these events. Such descriptions are either of a specific series of events on a particular campus, or of national developments during a particular period of time (e.g., 1965-1970), or case studies of specific individuals involved in such events.

(3) Research. Field studies, statistical surveys, and (rarely) small-scale laboratory studies pertaining to such factors as personality characteristics, backgrounds, and attitudes of students who are involved in the protest movements.

1. Theoretical Approach

Theoretical discussions of the problems of student unrest have been primarily focused on three aspects: (a) personality and background characteristics of student activists; (b) characteristics of colleges and universities; (c) the issues and motives underlying student protest. There are many commonalities in the observations of various authors, but some discrepancies do exist. Typically, a particular theorist reviews the topic area (one of the three listed above) on which he is focusing, and then presents his interpretations and proposed remedies to problems in that specific area. Of course, such proposed solutions must be viewed as tentative, at best, because the underlying assumptions of causality, based on survey data or speculation, cannot be accepted without proof. In the following three sections, some representative publications and points of view will be presented, for each of the three aspects of student unrest separately.

Personality and Background Characteristics of Activist Students.

In their article on the changing social base of the American student movement, Mankoff and Flacks (1971) present a composite portrait of the student activist, upon which much theorizing has been based. This portrait includes the following elements: the activist comes from a background which is upper-middle-class and urban. His parents are educated and both tend to have careers; his father is likely to be a successful professional, rather than a businessman. His parents are politically liberal, rather than apolitical or conservative. He is likely to be Jewish in upbringing, and has experienced relative permissiveness from his parents which allowed him to determine his own values and life style. Personally, he tends to be more intellectually and academically oriented than non-activists. He has demonstrated high academic achievement and is likely to specialize in the humanities

or the social sciences. And, finally, according to Mankoff and Flacks, he places education in the service of self-development rather than material success.

Similar observations have been made by other authors. For example, Trent (1970) describes the typical revolting student as being from a very select group, high in intellectual disposition, autonomy, flexibility, and liberalism. According to Trent, these students are most often liberal arts majors, less often technology majors, and least often education majors. He observes that the student activist is not the communist, hippy, drop-out type so often depicted in popular accounts. Glazer (1968) observes that demonstrators in the Berkeley Free Speech Movement were "affluent and unrepressed." He concludes that they were "rebels without a cause."

A number of theoretical statements based on this picture of the student activist have appeared in the literature. For example, Wyatt (1968) points out that the rebels of today are the first generation to be raised by parents who hold new, more "reasonable" and "understanding" principles. He concludes that these rebels have more difficulty handling their guilt feelings than those raised by other methods because of the liberal supervision they experienced by their parents.

Bay (1967) suggests a theoretical explanation of the observation that "activists are more intelligent than their apolitical brothers." He proposes that if an individual is to be able to resist all attempts to socialize him (as, presumably, the rebel is doing), he must argue against these attempts and, therefore, must think within a more logical overall framework than the individual who is willing to simply abide with the status quo.

Trent and Craise (1967) base a theoretical stance on the assumptions that committed and informed intellectual dissent is the characteristic of activists, that this group represents only a minority of today's students, and that non-activists possess more autonomy and intellectual disposition than their non-student peers. They express a point of view which states that activism may enrich the educational experience, and they discuss ways in which colleges might further these traits (of activists) in their students. Activist traits, however, need not result in violence.

Keniston and Lerner (1971) discuss the "protest-prone" student, from the viewpoint of eliminating campus unrest. Some members of the public have suggested that if the student with a potential for activism can be weeded out before entering school as a freshman, many of the problems of campus activism can be eliminated. However, Keniston and Lerner propose several reasons to support their contention that eliminating the "protest-prone" student (one who fits into the type of composite presented above) would not eliminate student protest and could have detrimental effects. First, they point out that a policy preventing "protest-prone" students from entering colleges and universities would be illegal and contrary to the "spirit of American democracy." Secondly, it would eliminate the best students from our schools, both in terms of academic and intellectual ability, and in terms of socially useful idealism. Further, there is no way available to predict which individuals would become actively involved in protest; it is likely that the wrong students would be eliminated.

Finally, such a policy, according to Keniston and Lerner, would be counter-productive, producing the very bitterness and anger and inclination toward violence it would be designed to prevent. They propose that it would radicalize the moderates among high school graduates and turn the liberals into "arsonists and revolutionaries."

The major portion of research and theory dealing with the student activist has produced a portrait of him which is similar to the one upon which the preceding discussions were based. However, some theory has dealt with a somewhat different picture of the activist. For example, Freedman and Kanzer (1970) discuss the strike phenomenon. These authors propose that with the onset of striking as a form of protest, the characteristic of the protestors has changed from the "social elite" it has traditionally been. They claim that protestors (involved in strikes) are now often from working backgrounds or politically conservative orientations, and that their activism is a form of rebellion against these backgrounds and values. This point of view is quite contrary to the one which states that activists are merely doing what they have been taught (although the students may be more extreme) by their parents.

Similarly, Mankoff and Flacks (1971) argue that the social base of American activism is changing, bringing in "new recruits" who do not share the traditional liberal, politically-active backgrounds of older student activists. They propose that the new basis for radicalization may lie in the development of a kind of "generational consciousness" similar to the Marxian notion of "class-consciousness."

Characteristics of the University.

A number of theoretical propositions point to problems inherent in American colleges and universities which may contribute to the existence of student activism. These propositions appear to center around the premise that the university has two kinds of problems, internal and external, and that if these problems are solved, student activism will be significantly affected. The internal problems in this area revolve around the questions of authority and power structure within the university, the relationship among the various segments of the university community, i.e., administration, faculty, and students, and, to some degree, the question of number of students and school size. The external problems concern the university's relationship and stance toward issues of public policy and public controversy.

With regard to "internal" problems, a major theme seems to be that the power and authority structure of the university needs to be changed. It is felt that the university is "under-administered" (Gusfield, 1971), especially the large, public institutions, and is unable to formulate and execute policies toward the issues raised by student action and toward that action. Control by boards of trustees is viewed as an example of the detrimental nature of the hierarchical power structure of universities (Skolnick, 1969). Specific phenomena, for example, the strike, are seen as resulting in part from the waning power of authority (Freedman & Kanzer, 1970). Gusfield (1971) feels that there are basically three problem areas in the organizational

structure of the university: (a) isolation of Faculty from Administration; (b) isolation of the Administration per se; (c) isolation of students from university policy formation. Lipsett (1970) states that among the motivating factors for student unrest are the frustrations of the present-day student role and the political characteristics of some universities.

Freedman and Kanzer (1970) emphasize the changing roles of faculty and students as one of the contributing causes of the strike phenomenon. Sampson (1970) sees the problem of continued activism on campus as being caused by the widely divergent points of view of students and administrators. His analysis of the situation involves three major points: (a) the activist-administrator relationship is a symbiotic one. Activist students need a visible administration against which to protest; the administration needs active students in order to demonstrate its own power. (b) Students view the administration as the major frustrating factor in their attempts to improve the university and the society. The administration views the students as the major threat to campus peace. (c) The administration views students' impulsivity as immaturity. However, the student is anxious to see change while he is still in school; his future is at most four years, while that of the staff is considerably longer.

Rubenstein (1969) offers an interpretation of student unrest based on the growing size of student bodies. He attributes tensions on campus to this growth, and believes that students (in large groups) feel a sense of drama, participation, and group experience. These factors, according to the interpretation of Rubenstein, underlie much of the "force and vitality of student protests."

For external problems of the university, the primary focus appears to be on the university's new functions in areas of public issue. Theorists who discuss this matter emphasize the fact that universities have become deeply involved in public policy and in the political order, yet have not clarified their policy or the direction they intend to take in these involvements (e.g., Gusfield, 1971; Skolnick, 1969). Skolnick (1969) believes that it is unlikely that the university will see a reduction in conflict as long as it continues to be committed to "supplying research in certain politically contested areas." Gusfield (1971) feels that the university's failure to formulate its policies regarding public issues creates difficulties in responding to the demands, criticisms, and actions of the students.

In opposition to these points of view, Keniston and Lerner (1971) assert that universities have not become politicized to the degree that has been attributed to them. In addition, they present as false four other characteristics of campuses that have been widely thought to be related to student protest. These include: (a) the belief that campus protests are typically violent; (b) that campus discipline is either too permissive or too repressive; (c) that higher education indoctrinates students; (d) that discontent with higher education causes unrest. Keniston and Lerner conclude that campus characteristics have a limited effect on problems of unrest and that campus reforms would have a similarly negligible effect.

Issues and Motives Underlying Student Protest.

It has been stated that although student activism has existed in the United States in the past, the present era of unrest differs from other eras in its political and national character (Gusfield, 1971). A variety of factors has been postulated as contributing elements to this recent wave of activism.

One theory concludes that activist students are demonstrating self-determination and individual significance in a society characterized by depersonalization and alienation, particularly of the student (e.g., Lipsett, 1970; Oppenheimer, 1968; Shoben, 1969; Wyatt, 1968). For example, Oppenheimer (1968) proposes that activism is related to feelings of alienation from decision-making power and from the social system. He states that in a society which is increasingly characterized by complexity and which removes real decision-making power from ordinary citizens, one may expect attempts to reassert such power through direct forms of action. Lipsett (1970) points to the fact that students are considered "juveniles" sociologically, and are often legally treated as such; youth exists as a "separate social category."

Another school of thought proposes that student idealism and moral values contribute to activism (e.g., Lipsett, 1970). Flacks (1967) suggests that students are being faced with serious value conflicts. He notes that because of the liberal, permissive background of the "typical" activist, he is sensitized to resist authority perceived to be arbitrary or hypocritical, and rallies around the themes of "egalitarianism, populism and denial of conventional adult roles." Keniston and Lerner (1971) also feel that the major determinants of student protest are the students' moral values and their perceptions of the world. They propose that students protest when their values and their commitment to social change are contradicted by the practices of the society in which they live.

Finally, and possibly of somewhat lesser significance, many writers trace much student protest to high mobility and to readily available, informal means of communication (e.g., Freedman & Kanzer, 1970; Lipsett, 1970; Shoben, 1969). Shoben (1969), for example, states that activists are able to spread discontent throughout the nation through informal communication networks, thereby influencing other students who are "neither nihilistic or anarchistic" as they (the activists) are.

2. The Case History Approach

Unlike the theoretical approach, which tends to discuss "students" and "universities" in a general sense, the case history approach focuses on the specific events on a specific campus, during a particular, limited period of time. Typically, such a case study will present a detailed chronology of developing events, discuss the various factions involved in a conflict, sometimes discussing particular instrumental or "typical" individuals. Then it often proceeds to draw conclusions either about causality on that particular campus, or about campus unrest in general, similar to the theories discussed above. Included in this type of approach are

several "popular" oriented works such as the study of Kent State by Michener (1971) and the case studies of ten activist individuals by Lukas (1968). This approach has popular appeal because of its emphasis on real people involved in real events, and provides a kind of "look behind the scenes" of the events depicted in the news media. In some cases, such as the studies by Pruitt and Gahagan (1971) and Mann and Iscoe (1971), attempts are made to explain events in terms of already-existing theories of conflict, activism, social influence, and so forth. Finally, the case history approach is seen in many of the official commission reports concerning various campus disturbances, as, for example, the Cox Commission Report regarding the riots of 1968 at Columbia University.

Since most of these studies are long and involved, it would be impossible to adequately summarize the findings of any one of them. The prime advantage of the case history approach appears to lie in its potential for uncovering pertinent details of the background, development, and actual events and personalities involved in a situation of campus unrest, and the further potential for integrating these facts with other, previously derived facts in psychology, sociology, conflict management, and the like. An example of this type of reporting cum integration with theory is found in the study by Mann and Iscoe (1971) of the demonstrations at the University of Texas and in the city of Austin in May, 1969. These authors analyze the interaction patterns between the authorities and the activists during a week beginning with a potential for violent confrontation and ending with a peaceful demonstration and actual improvement of the relations between the opposing factions. The interaction processes are examined according to the psychological principles of social influence, viewed at a community level. Suggestions about ways to reduce the probability of violence in terms of improved crisis management are made.

3. The Research Approach

Research in the social sciences on the problems of student activism can be roughly divided into four categories, defined by the aspect of the problems dealt with: (a) statistical surveys, generally large-scale polls tapping demographic and similar variables; (b) experimental and survey research, focusing on the personal characteristics of activist and non-activist students; (c) field studies, attempting to determine attitudes toward activism and the student movement; (d) research dealing with the ideologies and issues underlying the student movement.

Statistical Survey.

This type of research has become very important in the area of student activism. Many theoretical statements (discussed above) have been based on or derived from the results obtained in surveys. Results are typically obtained from questionnaires sent to large samples of colleges and universities in the United States. Responses are gathered from administration officials and student leaders (e.g., student body presidents). Some of the more important findings from four of these surveys are presented below.

In a study of freedom of expression on U. S. campuses, Williamson and Cowan (1966) found that most schools permit a considerable degree of expression of unpopular viewpoints on controversial issues, but that students perceive themselves to be less free than the administration perceives the students to be. Student organizations have more freedom to take unpopular stands than do outside speakers coming onto the campus. Private universities permit the greatest freedom with regard to outside speakers, while private liberal arts colleges permit the least. Protestant private schools are the least permissive with regard to expression of unpopular points of view on controversial subjects.

Astin (1970) conducted a survey to study the causal factors underlying campus disruption in the year 1968-1969. He found that violence was most likely in demonstrations concerning racial issues and least likely in demonstrations concerning student services, or student power. Also, it was found that "protest proneness" of schools seems to be related to an incohesive social structure among students and between faculty and students. Legal action was most likely after demonstrations concerning the Vietnam War, while protests concerning racial policy most often resulted in internal, institutional disciplinary action. Finally, the probability of black student demonstrations increased as the absolute number of blacks on campus increased, not as the proportion of blacks to whites increased. Here, Astin hypothesizes a "critical mass" of students capable of creating a demonstration; beyond that critical number, additional students seem to have little effect.

In a poll carried out to determine the ways in which today's youth differ from their parents, Lubell (1968) discovered that there are little differences in political realms and in ideology of child-rearing. Most differences were found in terms of the sexual freedom and the rejection of organized religion expressed by youth.

Finally, Peterson (1970) carried out two polls of 1,000 accredited four-year schools in the United States, one in 1965, the other in 1968. His findings include the following: (a) Only a small minority of students (between 2% and 10%, depending on the issue involved) ever actively engaged in protests. (b) Protests are most frequent at public universities, and least frequent at parochial schools, and more frequent on large than small campuses. (c) Protests over off-campus issues are less frequent in the South than in any other area of the country. (d) Leftist groups such as the SDS were active on 1/4 of the campuses in 1965 and on 1/2 of the campuses in 1968. (e) The major issues of protests in 1965 were civil rights, dormitory regulations, and food services on campus; the major issues in 1968 were Vietnam, dorm regulations, and student power.

Characteristics of Activist and Non-activist Students.

The results of research on the characteristics of activists and non-activists have been extensively utilized in the derivation of theoretical viewpoints of campus unrest and student activism.

Flacks (1967) presents the results of interviews with activists, non-

activists, and their parents. He finds that activists tend to come from high status families and that they are more radical than their parents. However, the parents of activists tend to be more liberal and more permissive than the parents of non-activists. Activists score higher on measures of "romanticism," "intellectualism," and "humanitarianism," and lower on "moralism" than do non-activists. According to Flacks, activism appears to be related to a complex of values, not necessarily political, shared by the student activists and their parents.

Kerpelman (1971) argues that studies of the personality characteristics of activists and non-activists should also take these students' ideological stance into account. He compared subjects who were activists or non-activists in either the leftist, middle, or rightist ideological positions. Kerpelman found that activists of all ideologies were more intelligent than non-activists. This result is interesting in that it contradicts the position of other researchers, for example, Bay (1967), who proposes that left-oriented activists are more intelligent than right-oriented activists and non-activists. The Kerpelman study also found that leftist students are less concerned with social acceptance than right- or middle-oriented students.

Attitudes Toward Activists and the Student Movement.

The implications of studies dealing with attitudes toward activism may be quite far-reaching. The responses of others to student activities are likely to depend heavily on the attitudes held toward these activities, and, in turn, these responses can help determine the course of the development of events. For example, if a response (e.g., by police, by citizens in a college town, etc.) is negative and active, based on negative attitudes toward student activism, an escalating spiral of conflictual action and reaction may take place.

Olsen (1968) carried out a study to determine the extent to which a sample of urban, upper-middle class whites view various forms of social protest actions as legitimate. He found that those of higher status in terms of education, occupation, and income were more accepting of such actions, while increasing age was related to decreased acceptance. In addition, men were found to be more tolerant of protest action than women, and Democrats more tolerant than either Independents or Republicans. Finally, Olsen found that two types of political alienation (political incapability and political discontent) were inversely related to tolerance of social protest action.

Gales (1966) conducted a poll of Berkeley students' attitudes toward the Free Speech Movement on that campus. He found that 53% of the students supported the movement before it became active, while 33% supported it after demonstrations took place. He found that supporters of the movement tended to have high grades, were majoring in physical and social sciences, were either Jewish or belonged to no organized religion, and lived in off-campus private housing. Although virtually the entire student body at Berkeley supported the ideas underlying civil rights, supporters of the FSM were more likely than others to advocate civil disobedience as a tactic.

A somewhat similar survey of students' attitudes was conducted by Epstein, Suedfeld, and Bresnahan (1971), who obtained results which contradict those of Gales. These authors examined students' reactions to the occupation of a building on a large university campus. Those surveyed were either day or evening students at ten different campuses of the same university; students were polled on the first and the last day of the occupation. The results indicate that the majority of all students believed that the university should negotiate with those occupying the building. However, the conflict tended to polarize attitudes, primarily against the radical students. In addition, an overall increase in favorable attitudes toward conventional political groups was found. Finally, those closer to the actual conflict site held more negative attitudes toward the students who were perceived as the causal agents in the disturbance.

A study by Teger (1971) reports a random sample of students' attitudes both before and after the occupation of a university building by radicals. He found that after the occupation, support for the demands made by the radical students had decreased, but support for their militant action had increased. In addition, students reported a more favorable image of the university administration after the occupation than they had reported before that incident took place.

Issues and Ideologies.

A view of today's students which appears to be quite prevalent is that these young people are idealistic, and that they are disillusioned with a materialistic value system and with hypocrisy (e.g., Wrightsman & Baker, 1969). It seems to be the wide-spread belief that these are the types of factors underlying student unrest and activism, and that these ideological viewpoints are fairly consistently and broadly held by activist students. Indeed, a study by Christie, Friedman, and Ross (1969) did indicate that "New Left" activists at Columbia University did hold a consistent ideology relating to the "hypocrisy" of society and the discrepancy between its pronouncements and its actions toward such issues as peace and tolerance. However, these authors do concede that the high positive correlation between acceptance of "New Left" ideology and activism (subjects were students who had been arrested during demonstrations) may, in part, be due to an attempt by these students to avoid the kind of hypocrisy they decry.

Similarly, a factor analytic study by Gold, Friedman, and Christie (1971) indicated that politically active freshman students at Columbia scored higher on factors of New Left Philosophy, Revolutionary Tactics, and Machiavellian Cynicism than less active students. These same active students scored lower on factors of Machiavellian Tactics and Traditional Moralism than less active students.

On the other hand, several studies do not indicate the prevalence or consistency of this kind of ideology among students. Based on interviews with students, faculty, and administration of six campuses on which some form of student protest has occurred, Rubenstein (1969) points to four paradoxes (in other words, inconsistencies rather than ideologies) relating to students' attitudes vs. their behaviors: (a) the use of coercive efforts to uphold freedom; (b) a highly intellectual form of anti-intellectualism;

(c) the political nature of attacks against the politics today; (d) the struggle to find a basis for confrontation, even in the most permissive environments.

Finally, Kalikow and Carr (1968) studied college students in terms of their goals in life, rated on such dimensions as "materialism vs. esthetic-ism" and "egocentricity vs. altruism." Their results indicate in part that there were no differences between activists and non-activists on these types of goal orientations. In other words, the kind of ideology associated with activists did not show up in this sample.

4. The Role of the Moderate Student

We have seen that the majority of speculation, theory, case history, and research has been concerned with the primary participants in campus unrest: first of all with the students and their backgrounds, and secondly with the universities and their administrations. Unfortunately, many of the results that have been obtained are not comparable, and many of the theoretical statements are simply contradictory. Yet even if we had a "good" understanding of campus unrest, e.g., of its dynamics and its progress, we might not have gained much. As Gergen (1972) has recently suggested, social psychological phenomena change over time, particularly after the findings of researchers have been publicized. For example, the Michener (1971) book on Kent State will have made enough people aware of the sequence of events there (to the degree to which they were not aware already) so that an exact replica of that confrontation is not likely to recur. As stated above (Freedman & Kanzer, 1970), the characteristics of student unrest are already changing: those who were the primary movers in the direction of organized protest are giving way to others with a somewhat different philosophy. In other words, case histories and theories about past events may tell us little about the future of student protest. We know little about the forms it will take, precisely who the new radicals will be, what methods they will advocate, and so forth. Even if we did have answers to these questions, we may not be able to effect significant change in advance. As Keniston and Lerner (1971) stated, eliminating the potential protester from the university is not an ideal solution. Changing the radical's upbringing is impossible; rather the increasing liberalization of child-rearing may increase the number of potential protesters. Modifying the structure of the universities is again a slow and haphazard process. Moreover, if the university would permit even more freedom of speech and opinion than it already permits, protests and unrest may occur nonetheless, if those arguing that the need to protest is inherent in the current groups of students are correct.

A more important question may well be "how does one best deal with student protest, with unrest, and with violence when it <u>does</u> occur?" One solution to the problem is the study of those "confrontations" between university administration and protesting students, or between students and police, which have avoided violence. However, even here we encounter a problem. Not all campuses are alike, not all activists are potentially violent to the same degree, and not all confrontations are comparable. For example, it may be important to know how many students were present

during any confrontation, how strong the protesters felt, how much support they had, how aggressive or hostile they were at the time of confrontation, how much success they had in previous confrontations, and so forth. It is likely that these characteristics and others would combine in various ways to produce specific events which differ from situation to situation, and from campus to campus.

One finding, which may provide a beginning point for a different approach to the problem of campus unrest, seems rather reliable: the number of hardened activists tends to be a small percentage of the student population on any particular campus. In isolation, these persons are not particularly effective. Only when events have occurred that "radicalize" the non-radicals, when a "cause" has been found to rally support for the activists, can unrest proceed from insignificant protest to wide-spread violence. Various techniques have been used by radical groups to gain support from previously uncommitted students. Enticing a police officer onto the campus to engage in "police violence" allows the radicals to gain support with the demand that the "pigs should get off the campus." Picturing the administration as the avowed antagonist of all students (cf. Pruitt, 1971) can do the same thing. There are yet other means toward that end, but in any case the previously uncommitted and often apolitical moderate student must be radicalized before the conflict can become seriously large.

The question then arises: what provokes the average student to respond? Rather than focus on the radical, research directed toward avoiding or reducing violence in future confrontations might focus on Joe and Jane College. How do they respond to the confrontation between administration and radicals? What changes their attitudes, their beliefs, their motives, their support of one side or the other? What, in other words, turns them toward or away from the administration, and what turns them away from or towards the radicals? What are the characteristics of the radicalization process, or of the process which makes the average student stand staunchly behind the administration?

Research on the characteristics and the behavior of the moderate or uncommitted student has been limited. Some of his characteristics, compared to the radical, were discussed previously. However, it should be noted that a comparison of a limited number of radicals with a large number of "others" does not necessarily identify the "others" very clearly. There is no way in which one could conclude that since the radical has characteristics X and Y, the average student does <u>not</u> have them. There probably are quite many moderates or even conservatives whose parents raised them permissively, who are upper-middle class, whose parents are professionals, who are Jewish, etc., yet they have not turned into radicals. Research which more clearly points out how the moderate differs from the radical should focus on <u>both</u> personalities, environments, and so forth, not just on that of the radical.

The few studies that have carefully analyzed differences between protesters and non-protesters have produced mixed results. Kalikow and Carr (1968), using a sample of 168 southern college students, were unable to obtain any differences between those involved in civil rights activities

and those not involved. Gold, Friedman, and Christie (1971) obtained a number of differences between activists and non-activists. Most of the differences are descriptive of the philosophy and behavior of the two respective groups. However, they also demonstrated differences in Machiavellianism, a personality characteristic akin to the tendancy to manipulate vs. follow traditional morality. The moderates scored higher on Machiavellian Tactics and Traditional Moralism. They scored lower on Machiavellian Cynicism and characteristics descriptive of the radical's philosophy and tactics. Feldmand and Newcomb (1969a, 1969b) discuss the effects of college life on attitudes per se. These authors demonstrate that attitudes do change during the four years of college. Changes are produced by a number of experiences; however, there is no pattern of clear overall influence of exposure to university life. One of those changes, of course, could be a change in the direction of radicalization (cf. Gold et al., 1971; Mankoff & Flacks, 1971). Such a change would decrease whatever differences there are, at least for the moment, between the radical and the moderate student. How does this process come about?

Gusfield (1971) states that campus protests are most traumatic when they succeed in polarizing the campus into two opposing camps. He continues:

> "The initial actions of small and highly militant groups become significant as they draw the support of larger and larger numbers of students who are initially moderately dissident or even mildly reformist.... During this process, moderates may be transformed into radicals, while liberals may become authoritarians."

Gusfield sees two processes which produce the radicalization of the moderate. First he discusses the presence of police which serves to "outrage moderates who sympathize with the politics of the militants but have not supported their activism. As many organizers and militants know, if the opposition can be brought to repressive acts, the job of winning converts is often made easier."

The second process of radicalization is a function of "being caught up in the process" of protesting and moving to bolder and bolder actions which are in agreement with one's re-definition of oneself as a revolutionary (cf. also Bell, 1969).

Gusfield's view of radicalization, or diminishing of differences between the radical and the moderate, is not unlike the structural change model of community conflict presented by Coleman (1957). Pruitt (1971) has found that the Coleman model was the most useful among several conflict theories for the description of campus unrest at SUNY Buffalo. Coleman's sequence of events leading to conflict suggests that the problem is initiated by an action of the administration (this could be a decision by the university president not to allow girls in boys' dorms, as well as the United States President's decision to send troops into Cambodia) which leads the administration to become the defendant in a controversy. Enough persons may be alarmed by the incident, and a partisan organization is formed (or gains esteem) to struggle against the administration. Typically, the leaders of this organization are persons who have long been hostile

toward the administration and now find a reason to attack it publicly. These leaders are not typically persons who previously were in leadership positions. They are ideologically committed, reckless, and face none of the constraints of maintaining a previous community position. The issues concerned with the conflict are broadened beyond those of the precipitating incident. The administrators are painted as totally "bad." At this point, other members of the community come to the defense of the administration, and the community becomes polarized. The number of moderates and uncommitted persons becomes by necessity smaller.

Action now follows reaction (cf. Pruitt, 1971) in the form of a conflict spiral, as long as each side over-reacts to the move of the other. Of course, the more extreme the actions of the conflicting parties are, the more the polarization process will continue. The simple solution of an "under-reaction" to stop the spiral will not work at this point. Since structural changes have occurred, i.e., since the views of the two groups in conflict have been modified from their point of origin, since the size and characteristics of the conflicting groups have altered, and since the precipitating incident has been forgotten and has been replaced by other issues, one cannot simply "wind down" the conflict. Pruitt (1971), for example, indicates that a period of quiescense by the administration had effectively no influence on future reactions of the students. Once blame has been attributed, aggression was legitimized. If the target of aggression can be blamed, if it can be viewed as responsible for its own predicament, then one need not take responsibility for aggressing against the target (cf. Schwartz, 1970).

Observations on several campuses follow the suggestion made by structural conflict theory: moderates become radicalized and contribute to the critical mass which is needed to make the campus revolt a successful one, even if only for the time being. The research reported in this paper focuses on the effects of campus violence on the moderate. How does he react to violence? Does he respond differentially when violence is on the increase than when it is on the decrease? Whom does he support, and do his feelings of support change? What happens to his attitudes toward the radicals and toward the administration? How does he respond to police on campus? Answers to these questions and others will be provided via data collected in this research. This research looks specifically at the effects of increasing and decreasing violence. There are, of course, other potential sequences of events. This research looks specifically at the responses of individuals who are not directly participating in the violence. There are, of course, others who do. In other words, the research reported here, in spite of the large quantities of data that are reported, is not exhaustive. Finally, it should be emphasized that the data reported here were collected on a relatively conservative campus, one which did not experience as much unrest as most others have. Nonetheless, the data have important implications for the understanding of the moderate by those who want to prevent violence.

RESEARCH METHOD

Interactions among organized groups of human beings in the "real world" (in contrast to the laboratory) tend to be a rather complex matter. That is particularly the case when the behavior in which individual group members engage is only in part determined by their group. Conflict on the campus of a modern university in the sixties and seventies is one of the most complex phenomena. Not only are students responding as part of their group and its norms, they are also responding personally to a specific other person who may be present--a member of the administration, a policeman with a nightstick or a gun, and so forth. Most of the research methods that social science has developed find it hard to deal with such a phenomenon. Most survey research has been limited in context and has had to depend on makeshift operations because the researcher had to get his materials ready very fast, within hours after an event "happened." Laboratory research, on the other hand, has tended to focus on small components of conflict in isolation. Many lab researchers have even rejected the very idea of research which has "real world" relevance. For instance, the rather widely read handbook chapter of Aronson and Carlsmith (1968) rejects mundane (real world) realism in favor of experimental realism. These authors suggest that most real world situations do not lend themselves to good research; for example, a real-world task may be so boring to subjects that it hardly provides the means for getting good data.

Some real-world tasks are indeed anything but exciting. As a result, involvement in these tasks may be low, and experimental manipulations of the environment may not take hold. On the other hand, many real-world tasks or situations can be quite interesting or exciting, and many can even be threatening in some way. Placing a subject into such a task will likely result in considerable involvement and will assure that responses to experimentally induced situational changes will produce perceptions or behavior in subjects that are quite meaningful. The question which remains to be answered is: how does one translate an interesting "real world" situation or task into a laboratory setting where the experimenter has sufficient control over this environment?

In their handbook chapter on laboratory methodology for the forthcoming Handbook of Organizational and Industrial Psychology, Fromkin and Streufert (in press) discuss the problems of mundane realism and involvement in some detail. The interested reader is referred to that chapter for details. One of the methods which Fromkin and Streufert propose as a partial solution for the real world vs. laboratory dilemma is a technique known as experimental simulation. This research method was developed by Streufert and associates (Streufert, Clardy, Driver, Karlins, Schroder, & Suedfeld, 1965; Streufert, Kliger, Castore, & Driver, 1967) as a compromise incurred by the demands for research relevance to real world problems and demands for experimental excellence leading to inference of causality. Streufert et al. developed an environment (The Tactical and Negotiations Game Experimental Simulation -- TNG) which includes many of the complexities (multidimensionality) of the real world situation it represents, yet an environment which permits strict experimenter control over both between and within independent variables. In other words, both the beginning point (as in all simulations) and the

progress of events during the run of the simulation are produced by the manipulations of the experimenters. This methodology has a number of advantages and disadvantages. The most important of these are (on the plus side) the ability to infer causality and the fact that the experimenter need not wait until an event occurs naturally. However, (on the negative side) some of the precise control over potential external or confounding variables is lost (in comparison to the more austere standard laboratory experiment), and other variables that occur in the real world (variables that may or may not be extraneous) are not included. Nonetheless, as Fromkin and Streufert have pointed out, the compromise can be a quite useful one. In many cases researchers employing standard laboratory techniques have not been able to establish parallels between laboratory research results and real world events. Parallels between real world events and data obtained via experimental simulation techniques are much more frequent.

The method employed in this research is an experimental simulation technique adapted from Streufert et al.'s (1967) Tactical and Negotiations Game (TNG) to a university setting. Only the research environment was changed (for a discussion of the specific research environment used in this study, see S. C. Streufert, 1972). The technique of inducing independent variables and the method of measuring dependent variables for this research is identical to that pioneered in the TNG experimental simulation.

1. Subjects

Several hundred undergraduate students at Purdue University were pretested with items taken from the F Scale I (Adorno, Frenkel-Brunswick, Levinson, & Sanford, 1950) and Eysenck's (1957) Tough-minded-Tender-minded Scale. Ninety-six persons who scored as politically neutral (24 females and 72 males) were selected for participation in the experimental simulation. All subjects participated as four-person groups consisting of three males and one female (the approximate proportion of males to females at that time at Purdue University). One-half the subjects were placed in the increasing violence condition; the other half were placed in the decreasing violence condition.

Subjects reported to the simulation laboratories at Purdue University at 5 P.M. Four groups of participants were run each night. The two weeks during which the research was run were approximately one year after the Kent State deaths during a time when several activities in memory of Kent State students were held.

2. The Simulation Manual

After subjects arrived, they were asked to spend two hours reading the manual for the University Game Experimental Simulation (UGES). The purpose of this reading period was two-fold: (a) to familiarize participants in detail with the characteristics of the simulated Hamilton State University campus, its history, and the current state of conflict between the Administration and the Coalition Left (CL), a group of activist students; and (b) to provide two hours of parallel pre-experimental exposure for all subjects

(an attempt to reduce the effects of pre-experimental differences in immediate past experience). The manual used for this simulation (S. C. Streufert, 1972) is attached to the original of this report.

Among other things, the manual informed the students participating in the simulation that they represented the Student Coordinating Committee (SCC). The SCC was described as a group of moderate (middle of the road) students who had been trying to act as mediators in the conflict between the administration and the radicals (CL). Subjects were further told that the SCC had held a membership meeting the night before, and that this group of four had been elected as an ad hoc committee to direct the activities of their organization during this time of crisis. They were told that they were free to decide on and engage in any action they saw useful for the purpose of decreasing or ending the conflict on the Hamilton State University campus.

3. The Simulation Environment

Participating subjects spent approximately ten hours in the simulation laboratory. They were placed in large well-lighted and air-conditioned rooms, equipped with a video-receiver, a relief map of the campus, a university pennant, a telephone set, two desks with two chairs each, and other aids. The participants were also provided with "decision forms" on which they could specify any action they wanted their group to take. Decision forms could also be used to send messages to other groups supposedly participating in the simulation that night. The subjects believed that in addition to themselves three other groups were present: (a) a group of administrators, (b) students with strong conservative leanings, and (c) students with strong leftist leanings (CL). In actuality, all groups of subjects participated as the SCC. The actions of all other groups were programmed and simulated. Manipulation checks indicated that subjects attributed more than 90% causality for the events occurring on the campus to actions of their own group and actions of the other three groups which were supposedly present (see below). An aid in creating this belief was the telephone with which the participants were provided. They were told that they were free to call any of the other groups. When subjects dialed one of the numbers of the supposed other teams, a specific experimenter answered and re-iterated information (see below) which subjects had already received. When subjects requested any specific action or change of plans from any of the groups to whom they spoke, they were put off with statements like "I can't make such a decision by myself. I will bring up your suggestion during our meeting on Monday." The date when action might be taken on any request by participants was in all cases (unbeknown to the subjects) beyond the last playing period of the simulation. In other words, any telephone requests made by the participants had no effect on the course of events in the simulation (since all events were programmed), and although subjects tended to believe that the actions of their group (ordered by them on decision forms) did influence the events, they did not believe that their telephone requests were immediately effective.

Decision forms completed by the subjects were placed in a mailbox on the wall of their room and removed by the experimenters as soon as subjects flipped a switch indicating that the form should be picked up. Subjects believed that the experimenters, aided by a computer, would determine the

outcome of decisions made by all groups on the basis of information obtained from the progress of campus unrest during past years. Information which subjects received (also via the mailbox) on report forms, and the selection of specific televised news programs was said to depend on the interactive effect of decisions made by the groups of administrators, leftists, conservatives, and the participants' own group. None of the subjects during debriefing expressed any doubt that the events had been determined in any other way. Rather, they viewed the development of events as quite natural. This belief is also demonstrated by lack of attribution of causality to factors other than decisions made by the various groups (see above and the sections reporting data on attributions of causality and responsibility, below).

4. Time and Playing Periods in the Simulation

The simulation lasted for six 30-minute playing periods. Before the first period had begun (after the two-hour reading period) and after each playing period was ended, participants were asked to fill out a number of forms (see below). The participants did not know which playing period would be their last, so that an end effect could be avoided. Each period of 30 minutes represented nine hours "real" time. Each two periods represented one day, beginning at 6 A.M. and ending at midnight. A converted clock showing day of the week and time was placed in each subject room. This clock ran only for 30 minutes (nine hours "real" time) while subjects made decisions and received report forms (see below). It was stopped as soon as the 30-minute period ended, and remained stopped while subjects watched the TV program about events during the last nine hours, and while they filled out forms.

The participants received nine messages during each playing period, equally distributed over time (one for each game hour). Each message contained a single item of information. The choice of nine messages was based on the finding of optimal perceptual and decision-making ability for groups of subjects under information load conditions of 8 to 12 messages per half hour (Streufert, 1970; Streufert & Driver, 1967; Streufert & Schroder, 1965). Messages reported on activities of the administration, the conservative students, and the Coalition Left with equal frequency. The order of reports within each period was randomized for each team; however, all teams received the same reports for any specific violence level period to which these messages were assigned. The events reported on these report forms were repeated on the news film shown on television at the end of each period. The news films were assembled from film-strips of actual campus violence across the nation. The films were obtained from CBS News, New York. The relief map of the campus in each subject room was constructed to match the scenes shown on these films.

Information about events on campus and matching news films were assembled in order of increasing and decreasing violence. All groups of participants experienced a warm-up period first. This period was used to re-state the positions of the various groups both via messages which the participants received in their mailboxes and via a televised interview with the University

President, the President of CL, and the Presidents of the Hamilton Conservative Youth and the Student Coordinating Committee (subjects' own group). No violence was seen on the video presentation at the end of the warm-up period. Campus scenes were placid and calm. The next five periods (used for data collection) saw various degrees of violence. In the increasing violence condition, subjects were exposed (in order) to (1) another relatively placid campus setting, with only one minor demonstration by CL on the steps of the administration building, (2) relatively calm demonstrations by CL with the police present but inactive, (3) some CL violence and police active in defensive posture, (4) rioting by CL members and other students with police using nightsticks, teargas, horses, and arrests of students, and (5) extreme violence by CL, use of weapons by the police forces, injury of a national guard soldier by a shot in the arm, and the shooting death of three students. For groups of subjects placed into the decreasing violence condition, the order of these periods, including the report forms assigned to periods and the associated video broadcasts, were reversed.

5. Data Collection

Data for this research were collected on scales contained in the interim report forms which participants filled out individually at the end of each playing period. A limited amount of data was also collected before the first (warm-up) period of play. Responses were also collected after the warm-up period. These data were not used for analysis; the data collection for this period was used only to correct any misunderstanding that a few subjects had about how to respond to various instruments.

Interim report forms contained the following scales:

(1) Attribution of Causality. Participants were asked to respond to the following question: "If you consider the situation as it has developed during the last playing period, you might come to conclusions about causal factors in the development of the current situation. Please estimate the percentage of the current situation that is due to each of the following:

(a) Efforts by your team (SCC)

(b) Efforts by the radical students (CL)

(c) Efforts by the conservative students (HCY)

(d) Efforts by the administration, including police actions ordered by the administration

(e) Efforts by one or more police forces without the sanction of the administration

(f) Efforts by the faculty

(g) The situation existing at the beginning of the game which produced conditions beyond the control of any team playing the game

(h) Chance, arbitrary decisions by the judges, and characteristics of the environment."

Percentage ratings for the above eight items had to add up to 100%, so that forced choice distribution among the categories became necessary.

(2) Attribution of Responsibility. Participants were asked to respond to the following question: "If you consider the events that have taken place during the last playing period, what do you believe is the most likely degree of (e.g., moral) responsibility for the events that can be attributed to the following groups: ....."

The groups listed were the same as those for question (1) above.

(3) Perception of Violence. Participants were asked to indicate the level of violence which they experienced during the last playing period on three seven-point scales. The first scale (running from "no violence whatsoever" to "extreme violence") was concerned with violence on campus in general. Identical scales were provided for ratings of violence by the police forces (with or without administration sanction) and for ratings of violence by students.

(4) Support of the Administration. Seven-point scales running from "very much" to "not at all" were provided for responses to the question: To what degree do you think various groups currently support the position of the administration. Scales were provided for the following groups: the participants' own group, the administration, the radical students (CL), the conservative students (HCY), the news media (television broadcasts), and the people of the City of Hamilton. An additional scale was provided to obtain a rating for each subject's personal support of the administration.

(5) Support of the Radical Students (CL). Identical scales to those in question (4) were provided for support ratings for the radicals.

(6) Semantic Differential Scales. Participants were aksed to rate their own team, the administration, the radical students, and the police on a number of semantic differential seven-point scales. The scales used for analysis (additional scales were used as fillers) were: (a) evaluative attitude (bright-dark, bad-good, and awful-nice), (b) competence (competent-incompetent), (c) aggression (defensive-aggressive), (d) strength (weak-strong), (e) activity (active-passive), and (f) hostility (friendly-hostile).

Additional data on evaluative attitudes were collected by providing subjects with the three evaluative scales before the first playing period of the experimental simulation. Data from decision-making forms are available; however, since analysis of these data would take approximately one year's work for a half-time employee, they were not included in the analysis procedure.

6. Debriefing

After completing six playing periods in the simulation, subjects were carefully debriefed. The purposes of the research were carefully explained. None of the subjects expressed any objections to his participation in the research and a large proportion inquired whether they would be permitted to participate again. It was explained that repeated participation would not be useful for data collection since participants would have formed biases based on their previous participation.

RESEARCH FINDINGS

1. Data Analysis

All data were analyzed via analysis of variance techniques. Percentage data were converted to arc-sine values before analysis to reduce potential ceiling effects in the data. Mixed design analysis of variance techniques include all or some of the following factors: (a) increasing violence vs. decreasing violence, 1 df, between subjects; (b) five periods of play lasting 1/2 hour each, 4 df, within subjects; (c) comparisons between n (usually two) responses to different response scales completed after each 1/2 hour period, n-1 (usually 1) df, within subjects. Data from a sixth playing period placed as a warm-up period at the beginning of each simulation were not included in the analysis. The F ratios reported are primarily interaction effects. Lower order interactions or main effects are considered when a higher level interaction was obtained but not expected, when a higher level interaction was not obtained but was expected, or when interpretations require comparisons of lower order interactions or of main effects. In other words, main effects which are merely lower order expressions of interpreted interactions are disregarded.

All post hoc tests were Newman Keuls techniques based on ANOVA error terms. Significance reported for Newman Keuls data is limited to the maximal significance level of the respective ANOVA F ratio. The results obtained in this research are based on a series of analyses of a number of dependent variables originating from the same data collection procedure and are consequently based on repeated observations of the same subjects. This procedure may produce some concern about acceptable alpha levels since random sampling for each analysis cannot be assumed. Consequently, all interpretations of low order significance levels (e.g., $p < .05$) should be viewed with caution, pending replicability of this research. Data of these kinds are cautiously interpreted in this paper, particularly when degrees of freedom or power are low.

2. Manipulation Checks

Groups of subjects were exposed to increasing or decreasing experimentally induced levels of violence. The violence was reported via written messages and was viewed on pre-scaled video programs presented to the participants at the end of every 1/2 hour playing period. To determine whether increasing and decreasing violence was perceived as presented, subjects were asked to "indicate the degree of violence that has occurred on the campus of Hamilton State University during the last playing period." A two-way mixed design ANOVA produced an interaction F ratio of 238.04, df 4/376, $p < .001$. The data are presented graphically in Figure 1. A view of the graphic presentation and the level of the F ratio suggests that the manipulation was successful. It is particularly interesting to note that the mean perceived violence scores cover nearly the entire seven-point range of the violence perception scale.

The violence information received by the subjects was specifically limited to violent behavior by two groups: radical students and police.

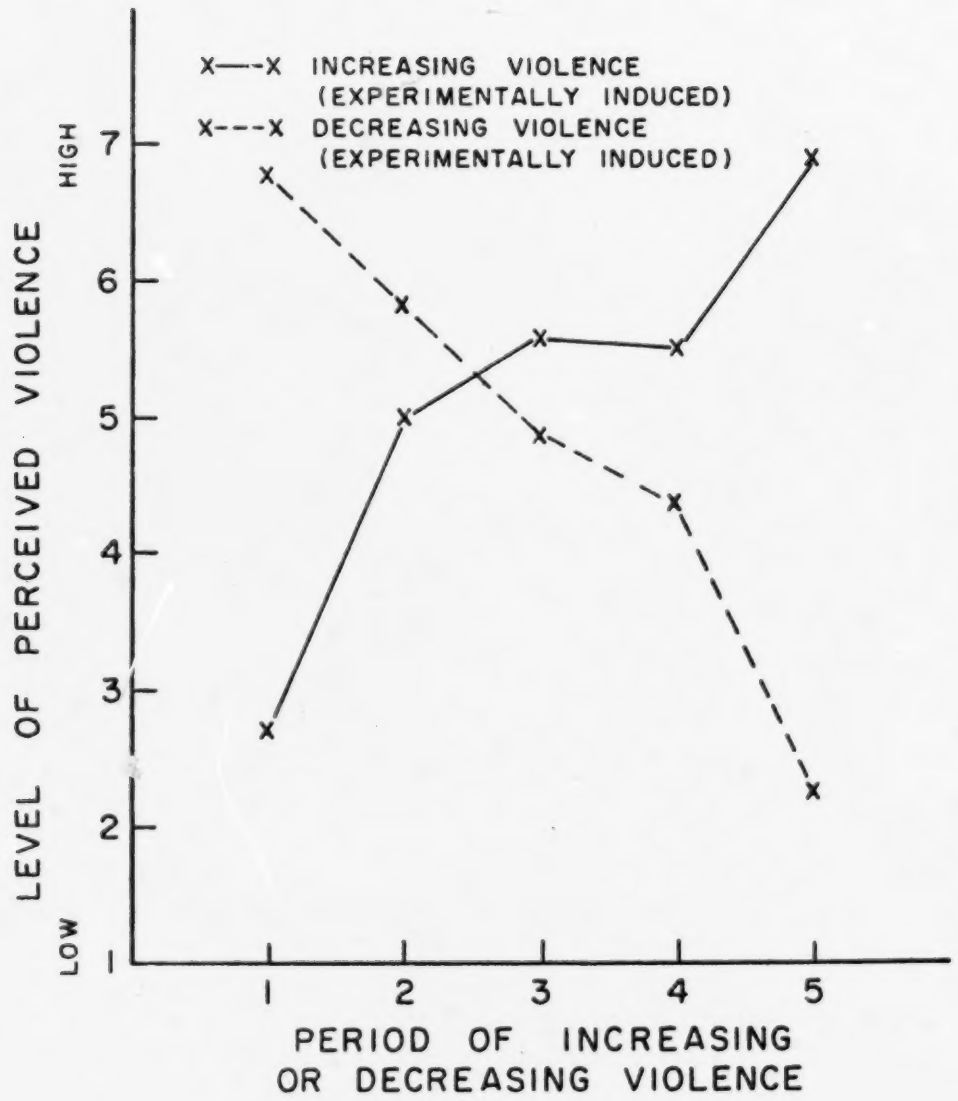

FIG. 1. Effects of Experimentally Induced Violence on Perceived Violence.

A second manipulation check should consequently determine whether the violence was accurately perceived for the two groups who engaged in violence. Subjects responded at the end of every playing period to the request: "Indicate the degree of violence that was produced by activities of the police forces," and in another question they were asked to "indicate the degree of violence that was produced by activities of groups of students." The interaction F ratio (increasing/decreasing violence by five periods) for violence produced by activities of police forces was $F = 284.73$, df 4/376, $p < .001$. The parallel F ratio for activities by students was $F = 189.58$, df 4/376, $p < .001$. Placing the two ratings in interaction (adding a police rating/student rating factor) resulted in a relatively small but significant three-way interaction term $F = 12.00$, $p < .01$. The greatest effect, however, was found in the two-way interaction term combining violence of the two groups (interaction of increasing/decreasing violence by periods of play), $F = 345.08$, df 4/376, $p < .001$. Although small differences among the perceived levels of aggression for radical students and police were obtained, the primary pattern of perceptions were rather similar (see Figure 2). The primary discrepancy between the levels of perceived police and student violence was obtained in the increasing violence condition where students were viewed as more violent than police throughout the simulation. The data obtained (from the same experimental manipulation in inverse order) in the decreasing violence condition, however, showed a number of cross-overs for the student and police curves. While all comparisons between student and police curves were significant (Newman Keuls $p < .01$) for increasing violence, significance was found only for period 2 ($p < .01$) and in the inverse direction for periods 4 ($p < .01$) and 5 ($p < .05$) under conditions of decreasing violence. The data again suggest that the manipulation was successful; however, care will have to be taken in comparisons of police and student ratings on other scales when violence is on the increase.

Another check on the accuracy of subjects' perception is a check on the internal consistency of participants' responses on scales. Subjects were asked to indicate the degree of support by the administration and the radical students for their own current positions. Data were again obtained on seven-point scales. If the game appeared realistic, then each group should be viewed as highly supportive of its own position. Analysis of the mean support scores indicated that subjects consistently viewed both groups as supporting their own position (mean values on seven-point scales remained consistently at or near a score of 7.0). No significance was obtained for the increasing/decreasing violence and the periods of play main effects or for their interactions.

A final check is concerned with the degree to which subjects attributed causality for events in the game to events external to the game itself. Streufert and Streufert (1969) suggested that an experimental simulation should produce a total of less than 20% causality attribution to effects such as experimenter interventions, chance, and other characteristics of the environment which subjects are unable to modify. More than 80% causality attribution should fall into categories such as "decisions made by subjects' own team" and decisions made by other teams supposedly participating in the simulation. Fromkin and Streufert (in press) have discussed the value of this manipulation check in a forthcoming handbook chapter.

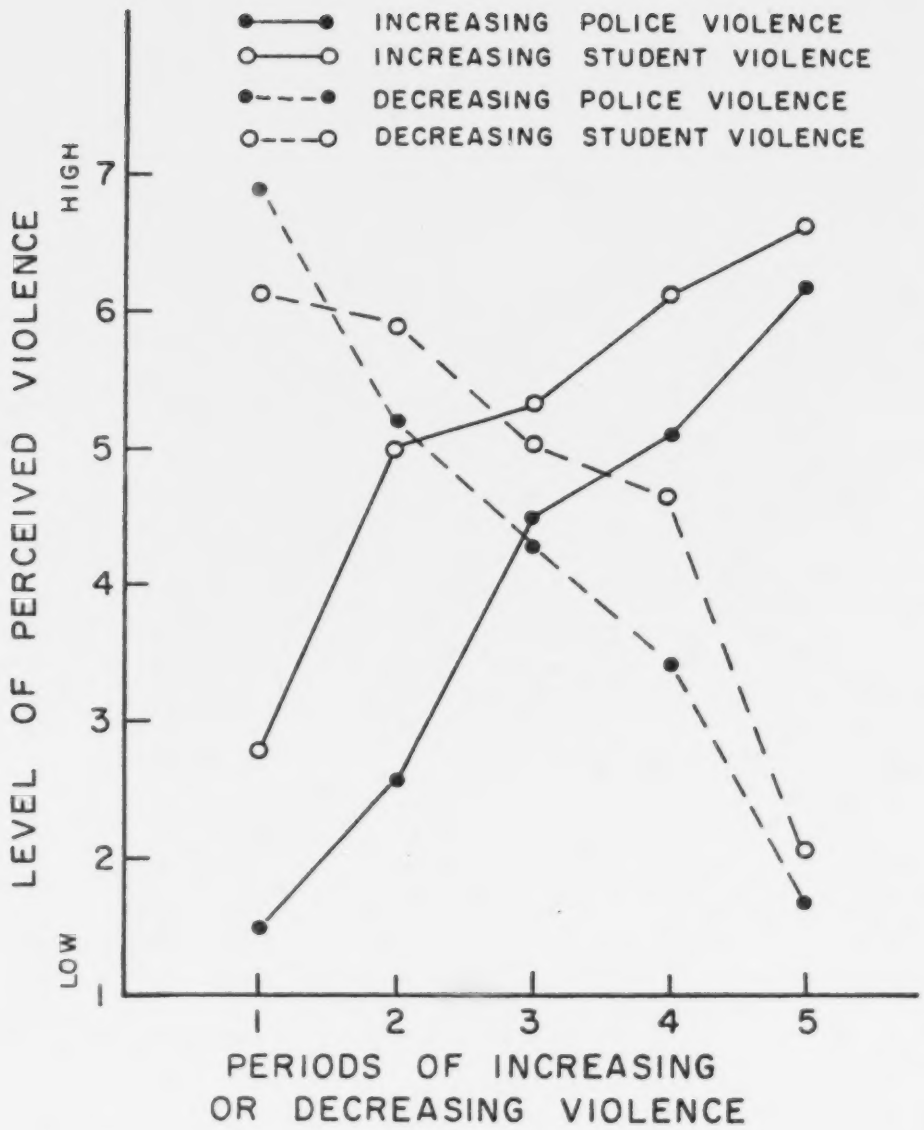

FIG. 2. Effects of Experimentally Induced Violence by Radical Students and by Police on Participants' Perceptions of that Violence.

Mean estimates of percent attribution to "chance, arbitrary decisions by the judges and characteristics of the environment" remained below 5% in all playing periods of the simulation. Comparisons of cells via ANOVA indicated no significance for either main effect or the interaction effect.

The results discussed in this section suggest that the experimental manipulation was successful. Other evidence was obtained via observation of the subjects. When (in the playing period of greatest violence) news was received that several persons had been killed in an exchange of gun fire between a dormitory and national guard troops on campus, participating students frequently showed the same signs of emotional anguish that have been reported by Milgram (1963). Many cried, some fell silent, some laughed nervously. In two cases, students prevented others in their group from leaving the game room to go to the restroom with the demand "You can't go now, you might get shot out there" (a curfew had been announced previously by the National Guard). Although the experimenters who operated this simulation had had considerable previous experience with experimental simulation techniques, even they were surprised by the very high degree of involvement which the participants displayed and with the degree to which they viewed the events as "reality." The fact that the research was run on the first anniversary of the Kent State deaths probably increased involvement levels. The greatest effect, however, may be due to the fact that this experimental simulation is what Drabeck and Haas (1967) called a "realistic" simulation: among other things, students were operating as students, engaging in behavior which was in their normal repertoire, and experiencing events that they did not at all view as unlikely even on their own rather conservative campus.

3. Validity

Even when internal validity (consistency) is obtained, there is always a question about external validity, i.e., to what degree do the results obtained in this research represent reality? The value of the research is, of course, based on the fact that many of the data obtained here cannot be obtained in the "real world" since manipulation of many of the independent variables used in this research is impossible in any real world setting. Rather the field researcher or the survey researcher must wait for an event to occur and then measure its effects. If the researcher is lucky, he happened to measure the same variable before the relevant event, so that he can now make comparisons. Nonetheless, survey data are potentially confounded by unrelated events and by time effects. However, a limited amount of data has been obtained during campus unrest periods, and comparison of the experimental simulation data with survey data obtained in the real world is possible. Whenever the opportunity is given, such comparisons will be made, so that conclusions about potential external validity of this research can be attempted. If all comparisons between survey research and this research show the same or similar results, then we can be considerably more confident about both survey results and other data reported in this paper. Parallels between data from this research and from survey and field approaches by other researchers will be discussed under the specific headings to which the data are applicable.

4. Attribution of Causality and Responsibility

Attribution of causality and attribution of responsibility measure two rather different yet related constructs. To put it in popular English: "who did it" and "who is guilty." Standard social psychological theory tends to view attribution as the degree to which persons view outcomes as a composite of luck and skill. In both cases causality is involved: both luck and ability may be the cause of an event. However, one would not typically ascribe "responsibility" to luck. Luck tends to be viewed as a chance event for which no one is responsible. Luck "just happened." The same is true for the inverse. Bad luck is not usually seriously ascribed to a person in some permanent fashion. And even if someone is viewed as "unlucky," we don't typically view it as his fault.

Viewing events that are set in motion by positive actions of persons, events which are not to any great degree part of good or bad luck, then must be ascribed to skill, to intent, or at least to some initiating activity that "started the ball rolling." But starting the ball rolling does not necessarily determine where the ball rolls. Further, being told to start the ball rolling may or may not make one responsible for its final resting place. The "not guilty" pleas of the Nazi leaders at Nürnberg, and the later "not guilty" plea of Calley and others after the My Lai killings suggest that at least some persons distinguish strongly between being "causal" and being "responsible." The same might hold for the police or the National Guard who fired on students, and the same might hold for students who threw rocks and bottles at the police. We do not have data to discover how either group felt before, during, or after the incidents. We can, however, analyze the degree to which moderate students viewed causality and responsibility of radicals, administration, and police in a simulated unrest situation.

Attributions of Causality.

Attribution of causality was measured in the manner discussed by Streufert and Streufert (1969). Subjects were asked to consider the situation as it developed during each playing period and assign percentage values to the causal factors that produced the situation. One hundred percent causality had to be distributed among (a) efforts of subjects' own team, (b) efforts by the radical students, (c) efforts by conservative students, (d) efforts of the administration, including administration-ordered police action, (e) efforts by the police, without administration sanction, (f) efforts by the faculty, (g) situational factors beyond the control of all concerned, and (h) chance, environmental characteristics, and arbitrary decisions by the judges (experimenters). We are here particularly concerned with conditions b, d, and e. Since the values for three of eight categories add up to less than one hundred (unity), the results could be analyzed via ANOVA procedures. However, to eliminate ceiling effects (particularly at the lower end of the percentage scale), all data were converted to arc sine values. These re-distributed values will be used in this paper (e.g., in any figures presented below). The interested reader will be able to find the complimentary percentage values in most statistical tables (e.g., in Winer, 1962, p. 650).

Arc sine percentage values for attribution of causality to radical students were analyzed via two-way mixed design ANOVA procedures. A significant periods by increasing/decreasing violence interaction effect was obtained ($F = 4.62$, 4/376 df, $p < .01$). The interaction effect was produced by increasing attribution of causality to radicals under conditions of increasing violence, and constant attribution under conditions of decreasing violence. Post hoc Newman Keuls tests indicated that increasing violence periods 1 and 2 differed from periods 4 and 5 ($p < .01$). Differences between period 3 and periods 4 and 5 were significant beyond the .05 level. Increasing violence periods did not differ from decreasing violence periods 1, 2, and 3. For periods 4 and 5, increasing violence attributions of causality to radical students exceeded decreasing violence attributions ($p < .01$). The same finding is also reflected in comparisons of equivalent violence periods for increasing and decreasing violence conditions. Period 5 for increasing violence (greatest violence) produced more ($p < .01$) attributions to radicals than period 1 for decreasing violence (also the greatest violence period). Similar results were obtained for comparisons of period 4 for increasing violence (next greatest violence) with period 2 (the equivalent period) under decreasing violence conditions ($p < .05$). Mean attributions to radicals across all conditions was 1.5504 (arc sine) equivalent to approximately 30%, a value considerably higher than the 12.5% which would be expected if attributions to all possible eight categories would have occurred with equal frequency (or if subjects had responded at random).

The results suggest that the radicals were viewed as the cause of the situation on campus to a considerably larger degree than one would expect by chance, and that the attributions to them do not change when violence is on the decrease. If violence is on the increase, however, they are seen as contributing increasingly greater amounts of causality. The results are shown in graphic form in Figure 3. Note that the trend toward decreasing attribution between period 2 and period 5 for decreasing violence just misses significance ($.10 > p > .05$).

Arc sine percentage values for attributions of causality to the administration, including police actions ordered by the administration, produced a significant periods by increasing/decreasing violence interaction effect ($F = 3.87$, 4/376 df, $p < .01$). Post hoc Newman Keuls analysis of the cell means indicated that the interaction was produced by one particular mean which differed greatly from a number of others: attributions of causality to the administration for the second period of increasing violence. Apparently the campus had been sufficiently calm for two periods to view the administration as less causal. Attributions of causality to the administration differ between period 2 and periods 3, 4, and 5 ($p < .05$) for increasing violence, and period 2 for increasing violence differs from period 2 for decreasing violence ($p < .05$). Equivalent periods under the two conditions did not differ. Mean attribution of causality (arc sine) over all periods and conditions was .91862, or approximately 20%, still considerably above the value of 12.5% expected if assignments of percentages would have been random or equal in all categories. The results are presented in Figure 4.

The fact that only one period differed from the others makes this result suspect. The F ratio of 3.87 reaches significance beyond the .01

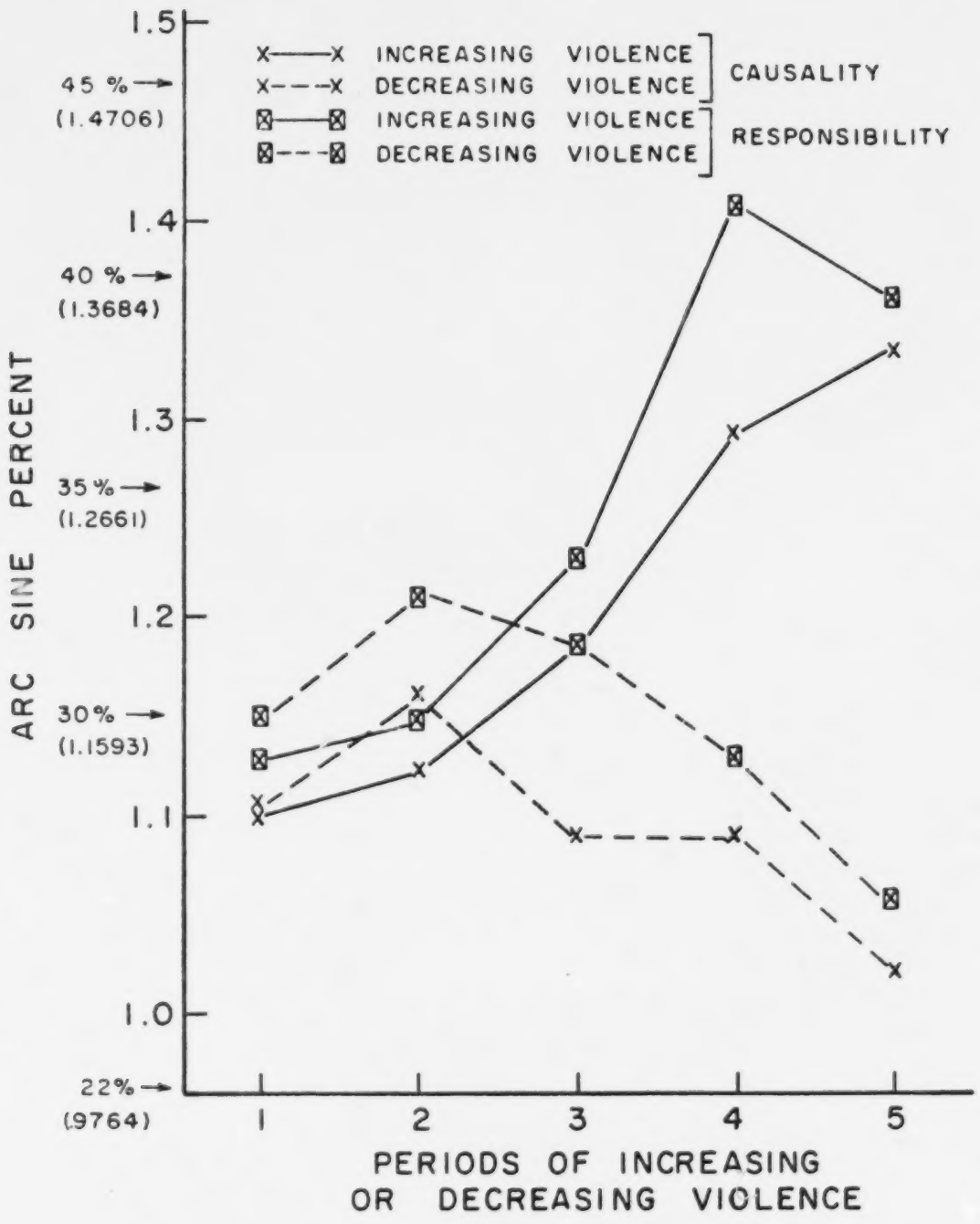

FIG. 3. Effects of Increasing and Decreasing Violence on Attributions of Causality and Responsibility to the Radical Students.

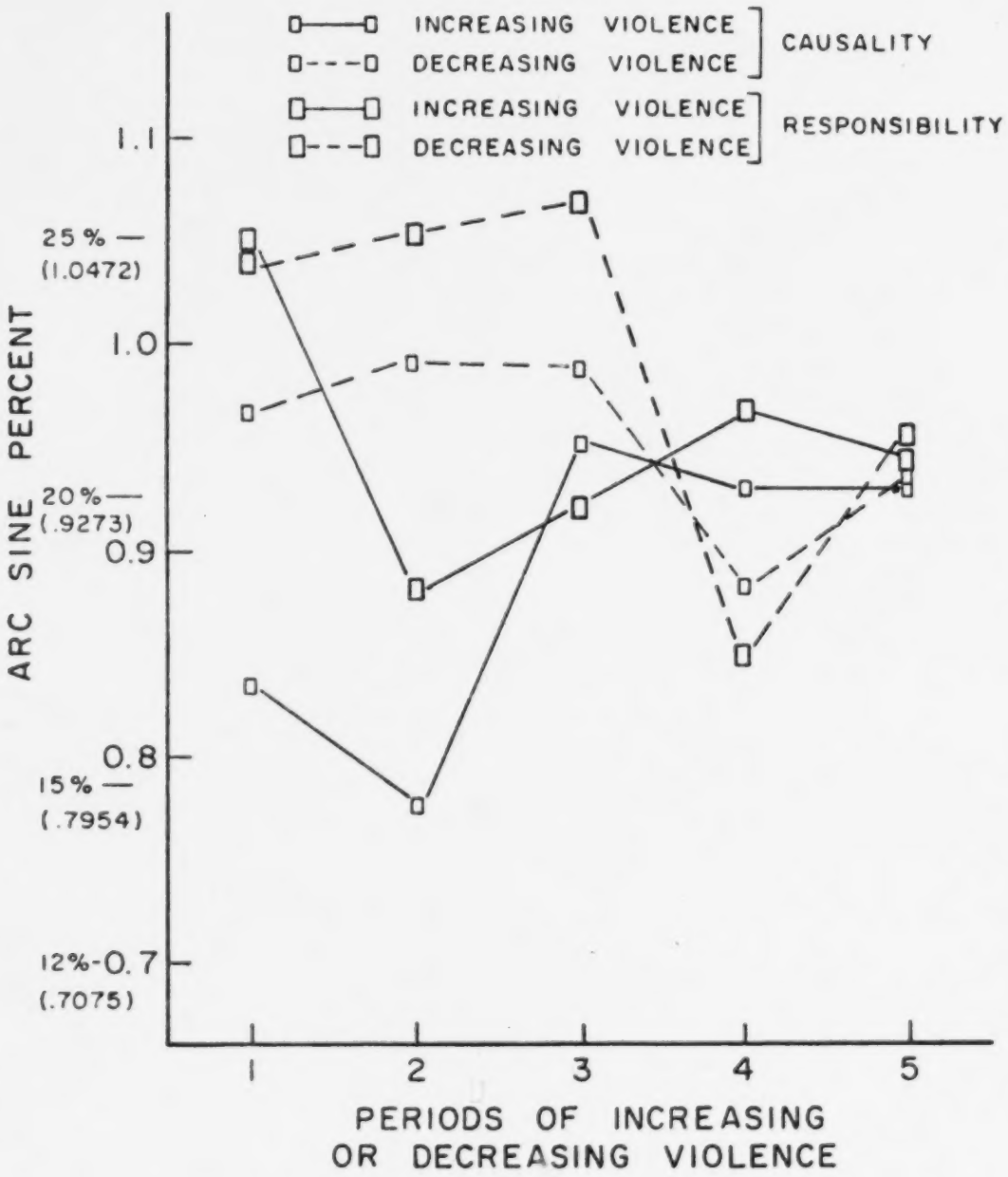

FIG. 4. Effects of Increasing and Decreasing Violence on Attributions of Causality and Responsibility to the Administration.

level only because of the high value for degrees of freedom (4/376). We will consequently view this result with considerable caution.

Arc sine percentage values for attribution of causality to police actions without administration sanction were analyzed via ANOVA procedures and produced a periods by increasing/decreasing violence interaction F ratio of 18.66 ($p < .01$). The obtained F ratio reflects increasing attribution of causality to police with increasing violence, and decreasing attribution with decreasing violence. Post hoc Newman Keuls analysis indicated that periods 1 and 2 differed from periods 4 and 5 ($p < .01$) for both increasing and decreasing violence conditions. Attributions of causality to the police under equivalent violence conditions is greater for the two greatest violence periods when violence is decreasing than when it is increasing ($p < .01$). One should note, however, that these results reflect only very small attributions. As stated above, randomly expected attributions would be 12.5%. Mean attributions to unsanctioned police actions across periods and conditions resulted in an arc sine value of .32110, or approximately 2.5% causality. Compared to mean attributions to the radicals (30%) and the administration (with sanctioned police actions included) (20%), this figure is rather low. Nonetheless, Newman Keuls comparisons (see below) indicated significance between all percentages ($p < .01$). The results clearly follow the interaction pattern that has been observed earlier in the manipulation checks (see Figure 5). In other words, even though increasing police violence in the increasing violence condition was perceived, and even though the inverse was perceived when violence was decreasing, moderate students appeared to assign the major portion of causality for violence to groups other than the police. These findings are in strong agreement with the results obtained by Pruitt and Gahagan (1971) in his case study of unrest at the State University of New York at Buffalo.

Attributions of Responsibility.

Data on attribution of responsibility were collected in percentages (similarly to the causality data). However, in this case, participants were asked (again at the end of each period) to "consider events that have taken place during the last playing period" and to indicate what "(e.g., moral) responsibility for the events...can be attributed to the following groups." The groups were the same as those listed in the causality question.

Analysis of responsibility attributions to the radicals produced a significant periods by increasing/decreasing violence interaction ($F = 7.71$, 4/376 df, $p < .01$). The results are shown graphically in Figure 3. Increasing violence produced greater attributions of responsibility to the radicals. Periods 1 and 2 differed from periods 4 and 5 ($p < .01$) and from period 3 ($p < .05$). Decreasing violence did not result in significant changes in responsibility attribution. More responsibility was attributed to the radicals in period 1 under decreasing violence conditions and in periods 4 and 5 under increasing violence conditions ($p < .01$). Equivalent violence periods did not differ, except for greater responsibility attribution in periods 4 and 5 in the increasing violence condition compared to periods 1 and 2 in the decreasing violence condition. The radicals were viewed as

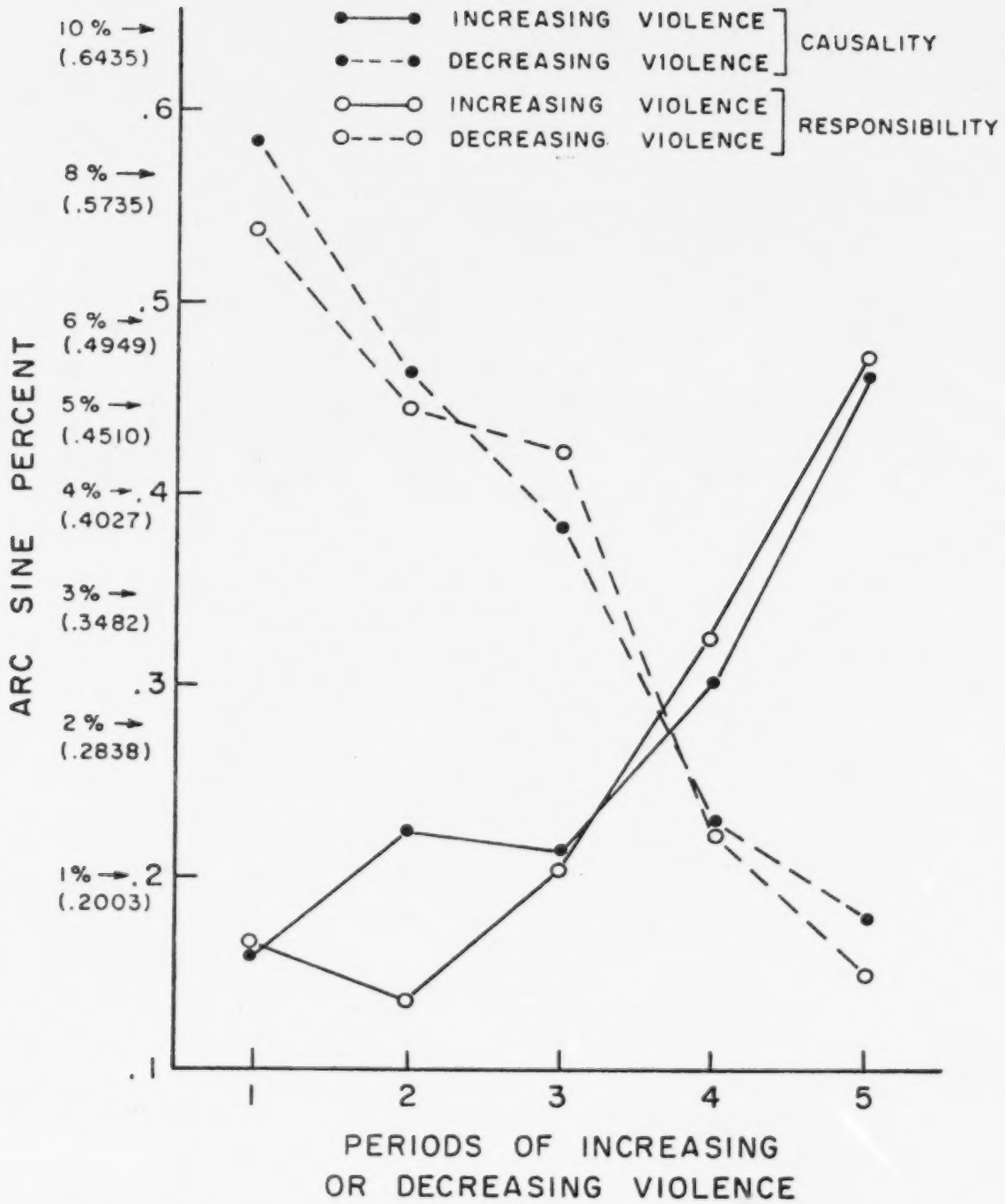

FIG. 5. Effects of Increasing and Decreasing Violence on Attributions of Causality and Responsibility to Police Actions Without Administration Sanction.

more responsible for the violence when it increased than when it decreased ($p < .01$). The mean overall attribution of responsibility to the radical students produced an arc sine value of 1.20462, equivalent to approximately 32% (compared to 30% attribution of causality).

Attributions of responsibility to the administration (including police actions ordered by the administration) were again subjected to ANOVA analysis. A rather small F ratio of 3.28 (4/376 df, $p < .05$) was obtained. The data are shown in graphic form in Figure 4. Post hoc Newman Keuls analyses substantiated a significant difference only for the comparison of periods 4 and 5 ($p < .05$) in the decreasing violence condition. Because of the marginality of this result, it will again be viewed as rather tentative. Overall mean attributions of responsibility to the administration averaged .97312 arc sine, equivalent to approximately 22%, again slightly higher than the 20% causality attributions obtained in the earlier analysis.

Attributions of responsibility to the police (for actions without administration sanction) resulted in an interaction F ratio (periods by increasing/decreasing violence) of 24.79 (4/376 df, $p < .01$). The results are presented in graphic form in Figure 5. Increasing violence produced increasing attributions of responsibility and decreasing violence produced decreasing attributions. The results in this case were very similar to those obtained in the attribution of causality analysis. Attributions to the police were greater in periods 4 ($p < .05$) and 5 ($p < .01$) than in periods 1 and 2 when violence was increasing. Similarly, attributions to police for periods 1, 2, and 3 exceeded those for periods 4 and 5 when violence was decreasing. Equivalent violence periods did not differ, except for the comparison of periods 3 in each condition (see above). In the overall ANOVA analysis, however, a significant increasing/decreasing violence main effect was obtained ($F = 4.87$, 1/94 df, $p < .05$). Attributions of responsibility to the police when they acted without administration sanction was greater when violence decreased than when it increased. Mean overall attributions of responsibility, however, were again very low, and well below the expected 12.5% value. The arc sine value obtained was .30852, equivalent to 2.4%. This value appears about identical to the causality attribution of 2.5% obtained above. Again, attributions to police actions without administration sanction was considerably lower than attributions to the administration (22%) and to the radicals (32%). All comparisons among attributions of responsibility to the three groups were significantly different (Newman Keuls analysis $p < .01$). (Newman Keuls analysis was based on the Responsibility/Causality X Periods X Increasing/Decreasing Violence interaction F ratio which is reported below.)

Relationship Between Responsibility and Causality Attribution.

To test for differences between attributions of causality (i.e., who did it) and responsibility (i.e., who is guilty), the results for radicals, administration, and police were re-analyzed by adding an additional within factor (responsibility/causality) to obtain three-way ANOVA analyses, and further were combined in a four-way ANOVA with a responsibility/causality and an administration/radicals/police (also within) factor added. The results of the analyses indicated that more responsibility than causality was

attributed to the radicals (main effect for the responsibility/causality factor $F = 9.5779$, 1/94 df, $p < .01$) and to the administration (main effect for the responsibility/causality factor $F = 13.975$, 1/94 df, $p < .01$). The responsibility/causality factor did not contribute to any interactions in the analysis for attributions to radicals. In the analysis for administration actions (including police actions ordered by the administration), an interaction of responsibility/causality with periods was obtained ($F = 3.284$, 4/376 df, $p < .05$). The result was due to a greater discrepancy between causality and responsibility attributions during the first period ($p < .05$ in Newman Keuls analysis). Apparently the participants in the simulation who had not yet been exposed to as great an amount of "spiraling" of events were more "accusing" of the administration.

The differences between percentage of causality and responsibility attributed to both the radicals and the administration appear rather small. In both cases, even though the differences were highly significant, the discrepancy between the two attributions was only 2%. One should note, however, that this discrepancy appears smaller than it actually is. The range of possible attributions is restricted due to the distribution of percentage attributions among eight categories, reducing the theoretically expected percentage in each category from 100 to 12.5. Any increment and decrement in attributions should consequently be viewed as a proportion of either the theoretically expected attribution level or of the mean level produced by that particular attribution rating. In either case, the 2% change becomes a much larger quantity. If related to the theoretical expected attribution, the change would translate into 16% on a 0-100 percent scale. If related to the obtained mean attribution, it would be 6.5% for the radicals and 9.5% for the administration.

Analysis of causality/responsibility attributions for police actions without administration sanction produced no main effect or interaction effects related to that factor. A four-way ANOVA including an administration/radical/police factor merely substantiated the previously discussed discrepancies for the ratings of administration, radicals, and of police ($F = 336.098$, 1/94 df, $p < .01$), and the fact that the causal/responsible discrepancy existed only for the radicals and the administration, but did not exist for the police (Interaction $F = 4.9576$, 2/188 df, $p < .01$). All other effects obtained reflected previously discussed results.

The results may be summarized simply. The radicals are seen as more responsible and more causal than the administration (included are, of course, all administration orders to the police). The police (without administration sanction) in turn are viewed as less causal than the administration. Both radicals and administration are seen as more responsible than causal, particularly before participants have been exposed to the spiraling events in the conflict between radicals and the administration. Finally, perceptions of the administration are not greatly affected by increasing or decreasing violence. In both cases the attributions of causality and responsibility to them do not change markedly. Attributions of causality and responsibility to radical students change only when violence is increasing: they are then held increasingly causal and responsible. Attributions to police (both responsibility and causality), even though small, follow the pattern of increasing and decreasing violence. When violence increases, attributions to them increase, and vice versa.

5. Evaluative Attitudes

Data on evaluative attitudes were collected on three semantic differential scales which have shown intercorrelations of +.85 and above in past research (cf. Streufert, 1965, 1966). Scores on the good-bad, bright-dark, and nice-awful scales were added into a single score. Evaluative attitudes toward (a) the administration, (b) the radical students, and (c) the police were obtained after each period of play in the simulation. Each of the ratings was analyzed in a separate two-way mixed design ANOVA. In addition, some of the ratings for the various groups were compared in three-way analyses.

Attitudes Toward the Administration.

Ratings of the administration by subjects who had not yet participated in the Hamilton State University Game averaged 12.35 on the three combined (summed) seven-point semantic differential attitude scales, a score very close to the scale midpoint of 12.0. Increasing and decreasing violence had quite divergent effects on participants' attitudes toward the administration. The periods by increasing/decreasing violence ANOVA interaction effect produced an F ratio of 10.72 (4/376 df, $p < .01$). In viewing the changes that did occur, one should remember that the administration was staunchly conservative: in the words of the simulated university president, "Violence cannot be tolerated." The administration directed this view primarily against the students, however. The police and National Guard actions were viewed by the administration as "necessary" to maintain or restore order on the campus. What, then, is the view of the administration as expressed by the average college student who experiences either increasing or decreasing violence around him?

It is interesting to note that the increasing violence condition did not produce significant changes in the attitudes of the participants. Although the mean evaluative ratings of the administration show a slight downward trend, even the differences among the most distant points on the evaluative scale did not produce significance. The administration, then, does not suffer greatly from its hard and fast stand against the radical students (cf. Figure 6).

The situation was quite different under conditions of decreasing violence. Where increasing violence permits the participants to assign blame, here they are able to assign credit for the resolution of the conflict on campus. For example, they may view the hard-line stand of the administration as actually contributing to the decrease in campus unrest (several subjects expressed this view during the debriefing sessions). Evaluative attitudes of subjects showed a sharp decrease in favorability toward the administration from the pre-game score to the first period "extreme violence" score ($p < .01$). As violence decreased, the attitudes recovered, however (see Figure 7). Once period 5 (no violence on campus) was reached, participants' attitudes toward the administration had reached an all-time high. Differences between the pre-game score and the last period score in the decreasing violence manipulation were significant beyond the .05 level. One may conclude that increasing violence hurts a conservative administration little, if at all, but a resolution of the violence can be very useful

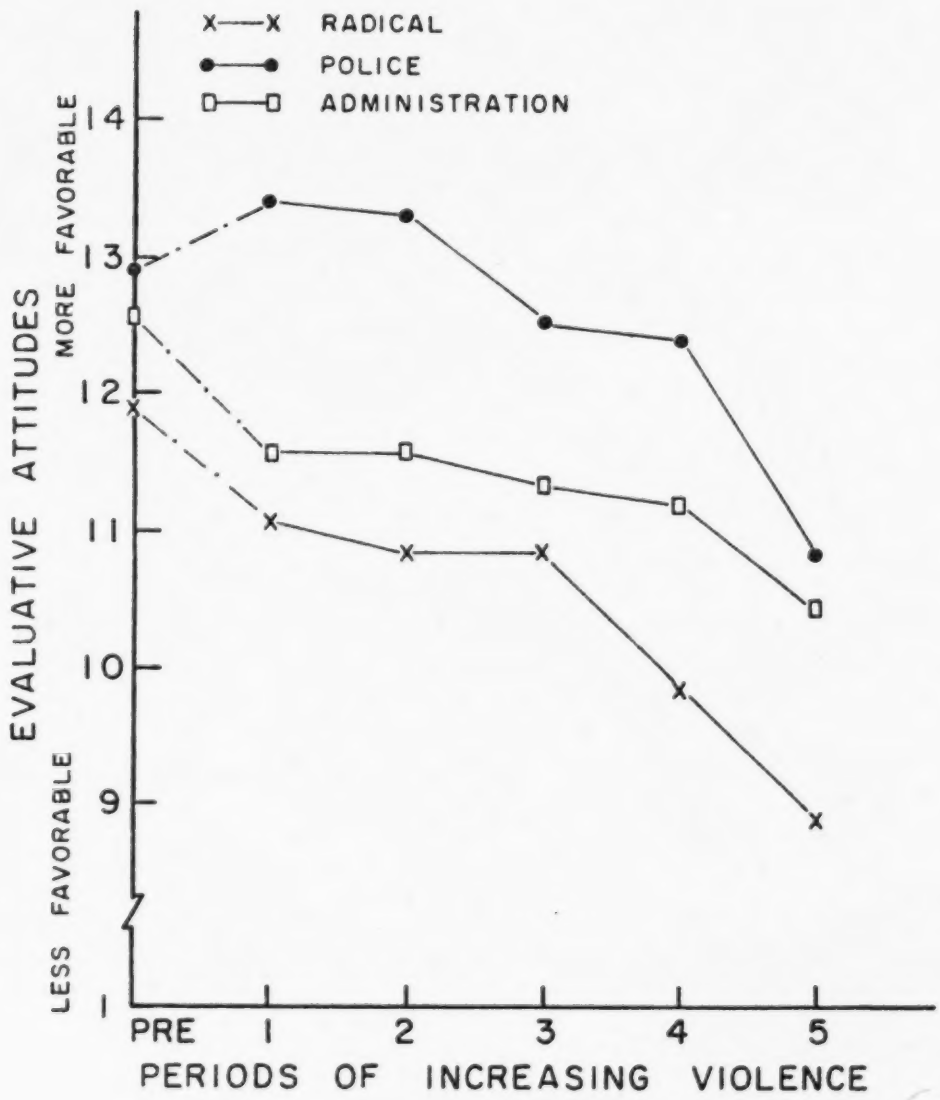

FIG. 6. Effects of Increasing Violence on Evaluative Attitudes toward Radical Students, Police and Administration.

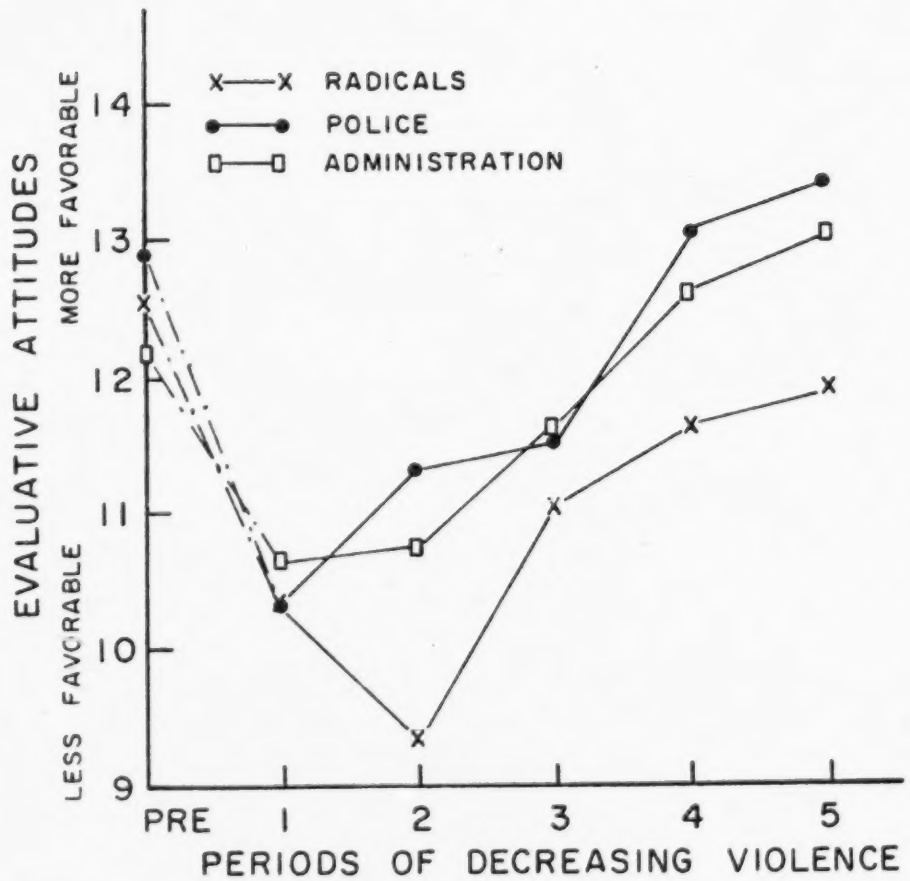

FIG. 7. Effects of Decreasing Violence on Evaluative Attitudes toward Radical Students, Police and Administration.

in producing more favorable attitudes of the moderate members of the student body towards the administration. In other words, closing the university at the high point of violence is likely to make enemies of some of the moderate students; leaving it operating and resolving the problems (if that is possible) will leave the students with a more favorable view of the administration than they had initially. It should be noted that the attitude discrepancy between the last (maximum violence) period in the increasing violence condition and the last (no violence) period in the decreasing violence condition was highly significant (Newman Keuls comparison $p < .01$).

Attitudes Toward the Radical Students.

Ratings of the radical students by subjects who had not yet participated in the Hamilton State University Game averaged 12.18, again a score which was not greatly discrepant from the scale midpoint of 12.0. Again we are dealing with a group of simulated persons (the radicals) who are not willing to change their course of action: they insist that the university is controlled by the military, that ROTC must get off this campus, that one of the most conservative administrators on campus should be fired, and so forth. These demands are stated as not negotiable, and the "Coalition Left," the organization of radicals, does not in any way depart from their charted course of action. They are, in other words, exactly as hard-line as the administration, yet the views of the two groups are completely contradictory, placing the two groups on a collision course. How do the radical students fare in the attitudinal views of the moderate students?

The data for increasing and decreasing violence by five periods of play were again subjected to ANOVA analysis. A period main effect ($F = 2.67$, 4/94 df, $p < .05$) and a period by increasing/decreasing violence interaction effect ($F = 21.70$, 4/376 df, $p < .01$) was again obtained, as one might expect from the data (see Figures 6 and 7). As violence increased, the attitudes of the moderate students toward the radicals became more negative ($p < .01$). This effect occurred as soon as the radical students engaged in any violent activity (the difference between periods 3 and 4, i.e., between demonstration and destructive action, produced a difference significant beyond the .05 level). No other adjacent violence levels did produce significance. This result strikingly replicates the findings reported from surveys of campus violence (e.g., Epstein, Suedfeld, & Bresnahan, 1971; Teger, 1971). These parallels between findings in the "real world" and findings in the simulation are encouraging when one views other data which have not been tested in real world settings.

How did the radical students fare when violence decreased? Initial attitudes after the first two playing periods resulted in considerable negativity. An interesting finding is the increased negativity in evaluative attitudes toward the radicals in period 2 as compared to period 1 ($p < .05$) (see Figure 7). Compared to period 1, violence had already decreased somewhat in period 2, and the subjects were quite aware of this decrease (see the manipulation check section above). The further lowering of attitude ratings appears to have been produced by a feeling of <u>outrage</u> among participants that the radicals wanted to continue their unrest activities after some students had been killed. (This conclusion is again based on subjects voicing these views in post-experimental interviews.)

This increase in unfavorable views of the radicals, however, did not hold for long. Period 3 shows a discrepancy from period 2 in the more favorable direction ($p < .01$): during this period (violence level) the radicals primarily demonstrated, and did not engage in as many violent actions. It should be noted that the radicals did not share the advantage which the administration gained from the decrease in violence; their fifth period score (no violence) under decreasing violence conditions remained slightly and insignificantly below their pre-game score. In other words, moderate subjects did not view them as more favorable when violence had subsided.

Again the discrepancy between periods 5 for increasing and decreasing violence was considerable ($p < .01$). It appears that although the radical students did not benefit from decreasing violence (as the administration did), they also suffered from increasing violence. If, in other words, the university is closed at the point of greatest violence, the attitudes of the moderate students toward the radicals would likely be quite unfavorable.

Comparison: Administration vs. Radicals.

An interesting question may be asked: who suffers more severely from increasing violence, and is the benefit the administration receives from decreasing violence greater than the return to the pre-rating levels which occurs for the radical students? To answer this question, the evaluative attitude ratings by moderate subjects toward radicals and toward the administration were placed into a three-way ANOVA (with radicals vs. administration as the additional factor). The three-way interaction was not significant ($F = 1.006$). The interaction for periods by increasing/decreasing violence produced the now familiar significant F ratio ($F = 27.47$, 4/376 df, $p < .01$). The comparison between attitudinal ratings of the administration vs. ratings of radicals resulted in a significant main effect ($F = 6.41$, 1/94 df, $p < .05$). In general, the administration was rated more favorably than the radicals. The most interesting effect produced in this analysis, however, was the significant ($F = 3.12$, 4/376, $p < .05$) periods by administration/radicals interaction. This interaction resulted from an increased discrepancy in the ratings of radicals vs. administration for the last playing period (period 5). In other words, we may conclude that, irrelevant of the direction the violence takes (whether it is increasing or decreasing), the administration gains in the view of students in comparison to the radical students. These data then seem to suggest that the radicals can only lose when violent conflict arises, and the administration stands to gain as long as the school is not closed at the height of campus unrest.

Attitudes Toward the Police.

The police are in part an extension of the administration, but are in part also independent of it. Once the governor sends the National Guard or the state police to the campus, the university administration can often do little to influence the action of the law enforcement officers. Students tend to be aware of this fact. During the height of conflict on campus, they assigned 11.66% of the causality for current conditions to "efforts of one or more police forces without the sanction of the administration."

This causality attribution exceeded the 2.05% attribution to this group during the period of calm on campus by more than 500%.

The police were also more actively involved in the violence than the administration was. Policemen were seen hitting students with nightsticks, they were armed with rifles and pistols, and the three students who were killed were likely killed by bullets shot by the police or the Guard. How favorable or unfavorable would the attitudes of the moderate student be toward such a force?

The patterns of attitudes under conditions of increasing and decreasing violence are again shown in Figures 6 and 7. The pre-game attitudes toward the police force were higher than the midpoint of the scale: just below 13.0. What was the effect of increasing violence in which the police participate upon consequent attitude ratings? The ANOVA interaction effect ($F = 31.54$, 4/376 df, $p < .01$) for police was again significant. Again, increasing violence resulted in more unfavorable attitudes ($p < .01$). The greatest change in attitudes of moderate students occurred between the fourth and the fifth (most violent) playing periods. These were the only adjacent periods that showed significant differences ($p < .01$). Under conditions of decreasing violence, evaluative attitudes dropped to a low in the first (greatest violence) period, and -- unlike attitudes concerned with radicals -- began to recover immediately between the first and the second playing period ($p < .01$). The change between periods 3 and 4 (when the police actions changed from aggressive to defensive) brought another sharp improvement in attitudes ($p < .01$). The final attitude score for period 5 in the decreasing violence condition (no violence) slightly exceeded (even though insignificantly) the initial attitudes of the moderate students toward the police forces. In other words, the police did not suffer from having participated in violence, once the violence had been resolved and peace had been restored to the campus.

Comparison: Radicals vs. Police.

A comparison between attitudes toward the police and attitudes toward the radical students appears to be of value. The same question raised above in the comparison of radicals and administration may be posed: in an overall comparison, how do the police fare when violence is increasing or decreasing over time as compared to the radical students? The data were analyzed with a three-way analysis of variance with radicals vs. police entered as a third (within) factor. The three-way interaction effect ($F = 2.12$) was not significant. The radicals vs. police main effect was significant ($F = 15.15$, 1/94 df, $p < .01$). The police were rated more favorably. The familiar increasing/decreasing violence by periods interaction again produced a significant F ratio ($F = 46.90$, 4/376 df, $p < .01$). As in the radical/administration comparison, the interaction effect for radical/police by periods was significant ($F = 3.43$, 4/376 df, $p < .05$). However, the significance in this case was not produced by the last period of play as it was in the administration/radicals comparison. Rather the difference was due to the effect of the second period, where radicals were viewed particularly unfavorably, especially (but not exclusively) under conditions of decreasing violence. This phenomenon has been discussed above.

Some overall conclusions about the effect of increasing or decreasing violence on attitudes of the moderate student may be stated. While the moderate student does not change his attitudes toward the administration greatly when violence is increasing, he does modify his views in a favorable direction when violence is decreasing. The administration, in other words, can come out of the conflict situation with an advantage, as long as the violence is indeed ended. The opposite seems to hold for the radical students. Although they regain some of their prestige when violence decreases, they experience more negativity from the moderate student than anyone else when violence is at its worst. Attitudes generally are more negative toward the radicals than toward either police or administration once conflict has occurred. In addition, it appears as though the moderate student would like the radical to cease his activities once serious violence has occurred, as demonstrated in the increased negativity between periods 1 and 2 under decreasing violence conditions. Attitudes toward police are apparently closely tied to the actions of the police. In contrast to the students, however, the police do clearly regain all their former prestige once the violence has been brought under control. However, the police do not add to their prestige (as was the case for the administration) once violence on the campus has ended. The overall conclusion, then, is a suggestion that it may be poor strategy for the administration as well as for the radicals to close down the campus at the worst point of violence (unless the closing of the school is necessitated by other cogent reasons). If the administration wants to maintain and increase the degree to which the moderate student views the administration favorably, then the school should remain open, at least until the conflict has subsided.

6. Competence

The characteristics of competence ratings have been reviewed in greater detail by Streufert and Streufert (1971). It should suffice here to point out that competence ratings may or may not be associated with evaluative attitudes. Certainly the "competent" worker is also a "good" worker, assuming that he is operating within the rater's sphere of personal interest and proximity (cf., the interaction distance concept of Streufert [1965, 1966] and of Cafferty and Streufert [1972]) and that he is evaluated primarily with regard to his behavior or characteristics as a worker. To the degree to which evaluation of another or another group diverges from this conceptualization, the correlation between evaluation and competence ratings may decrease. If an opposing group is rated, evaluation (attitudes) and other indices of liking may be low, while if that group is an effective opponent, competence ratings may be high. In effect, competence ratings for an opponent are at times higher than competence ratings for a lateral subgroup of one's own organization, even though the reverse is true for evaluative attitudes.

Similarly to the evaluative ratings, subjects responded to a seven-point scale ranging from competent to incompetent at the end of each of the playing periods. In addition, pre-ratings were obtained before subjects had begun participating in the experimental simulation but after they had studied the simulation manual. Ratings were obtained for (a) participants' own team, (b) the administration, (c) the radical students, and (d) the police.

Each of the ratings were analyzed in a separate two-way mixed design ANOVA. In addition, some of the ratings of various groups were compared via three-way ANOVA procedures.

Ratings of Participants' Own Group.

Some observers have stated that the moderate student tends to feel helpless once a confrontation among various groups on campus has begun. In effect, there are very few things these moderates can do, unless they themselves were to actively participate in confrontations, an action that is likely to worsen matters even more. The students participating in the Hamilton State University Simulation found themselves in just that kind of position. Their major attempts tc restore calm on the campus were made via "persuasion," and although several groups talked about getting actively involved in "stopping a demonstration," etc., none of them ever made a decision to do so (even though they did make many decisions requiring equivalent "work loads" from members of their group). In effect, then, the students were relatively helpless, particularly since attempts at persuasion turned out to be completely ineffective. Neither the administration nor the radicals were willing to listen to their requests to "cool it."

One's ability to be successful depends to some degree on one's self-image. If a group expects to be successful, if it is persuaded of its own competence in handling the task at hand, it is likely to work more effectively. The question arises: to what degree did the worsening or improvement of the conflict situation modify the participants' self-image? In other words, how competent did participants view their own group under conditions of increasing and of decreasing violence?

Ratings of their own team by subjects who had not yet participated in the simulation averaged 5.41, a rather favorable score, approximately one and one-half points above the scale midpoint. Increasing violence produced no changes in participants' perceptions of their own team's competence. Apparently the lack of opportunity to directly affect the course of increasing violence was not reflected in their self-image. However, there was some effect on how participants in the simulation viewed their teams when violence decreased. They often assumed that their attempts at persuasion to cool things were being listened to, and as a consequence their ratings of their own competence increased. The ANOVA for competence ratings of participants' own team produced a significant increasing/decreasing violence by periods of play interaction effect ($F = 7.95$, 4/376 df, $p < .01$). Newman Keuls analysis of comparisons among cell means suggests that the effect was produced by changes in competence ratings under the decreasing violence condition. Participants considered their own team to be more competent in the last period of play than in either the first or the second period of play ($p < .05$).

These data, then, suggest that the participants did not blame their own team for lack of ability. Rather, as they often stated in discussions with each other and in the debriefing, they viewed the progress toward increasing violence (for that condition) as "inevitable," a view that reflects many of the "real world" views expressed by students who were observers of

developing violence on their own campuses. It also reflects the participants' refusal to blame their own group for failure to achieve desired goals, a finding that has some similarity to data of Streufert and Streufert (1969).

Ratings of the Administration.

Pre-simulation ratings of the administration of Hamilton State University placed competence values at 4.51, slightly above the scale midpoint. Increasing violence did not produce any significant changes in competence ratings for the administration, even though perceived competence dropped to approximately the scale midpoint after participants were witness to the "statements of position" by the administration and the radicals during the first playing period. Decreasing violence, however, again produced a modification of participants' views of the administration. The ANOVA interaction effect for increasing/decreasing violence by periods was significant ($F = 6.23$, 4/376 df, $p < .01$), and Newman Keuls post hoc analysis indicated that the significance was due to changes in competence perceptions for the decreasing violence condition. Participants viewed the administration as more competent ($p < .01$) in the pre-rating than in periods 1 and 2 (greatest violence), and viewed the administration more competent in periods 4 and 5 (least violence) than in periods 1 and 2 (all comparisons $p < .01$ except periods 2 vs. 4, $p < .05$). In addition, the administration was viewed as more competent after periods 4 and 5 when participants were exposed to decreasing rather than increasing violence ($p < .05$). The results are shown graphically in Figures 8 and 9.

Again we find that the administration does not suffer greatly from increasing violence on campus. Similar results had been obtained for evaluative attitudes. An explanation for this finding may be gained by considering the previous analysis for attributions of causality and responsibility. Even though attributions of both causality and responsibility to the administration were moderately high, they remained constant when violence was increased or decreased. Any changes in ratings of "competence" would consequently have occurred for reasons other than increased or decreased activity by the administration. One may assume that a relatively "competent" and "good" administration which in the view of participants neither caused conditions of extreme violence nor conditions of no violence would hardly be viewed as less competent when activities initiated by the radical students (see perception of causality and responsibility for radicals) got out of hand. However, if the violence decreased, then the administration's stand per se could be viewed as at least "contributing" to the solution of the problem. Such a contribution can be viewed as a sign of competence. The absence of any change in competence ratings under increasing violence and the change under decreasing violence conditions would consequently be meaningful.

Competence ratings for the administration did not differ greatly from evaluative attitudes toward the same group. Whether this indicates that subjects did not distinguish between the two constructs, or whether the two are unrelated and the similarity of the ratings was due to chance, the characteristics of the sample, or the design of the simulation, remains to be seen. Some conclusions might be drawn from comparing competence and attitude ratings for radical students and for police.

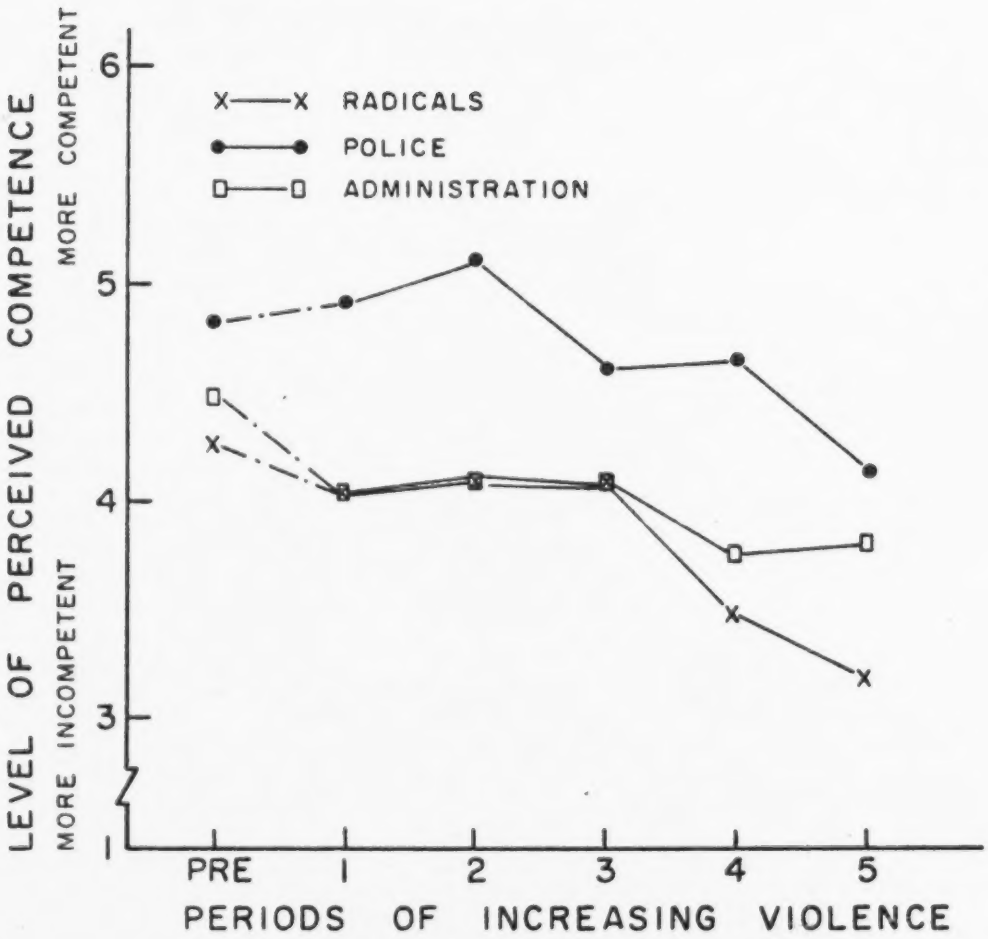

FIG. 8. Effects of Increasing Violence on Perceptions of Competence for the Administration, the Radical Students and the Police.

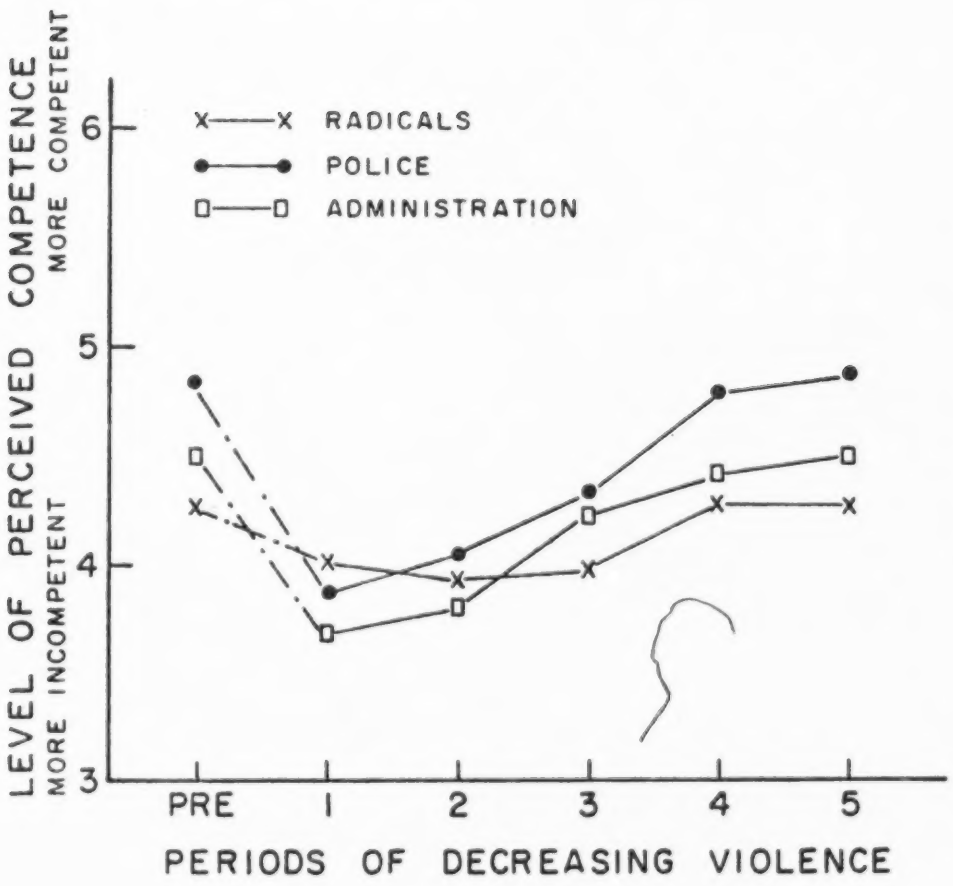

FIG. 9. Effects of Decreasing Violence on Perceptions of Competence for the Administration, the Radical Students and the Police.

Ratings of the Radical Students.

Even though attitudinal evaluation of the administration did not change under conditions of increasing violence, evaluative ratings of the radical students decreased when violence increased. Will evaluation-competence parallels hold for competence ratings of the radicals also?

The mean competence ratings of radical students obtained from the pre-simulation period was 4.22, a score which is not appreciably different from the scale midpoint (4.0), nor from the pre-simulation mean rating of the administration (4.51). Increasing violence produced a significant decrement in ratings of the radicals. For period 4 ($p < .05$) and for period 5 ($p < .01$) the radicals were viewed as less competent than during periods 1 and 2. In other words, engaging in extreme violence makes them appear to be less competent to the middle-of-the-road student. These findings are also reflected in the interaction F ratio obtained for periods by increasing/decreasing violence levels ($F = 8.87$, 4/376 df, $p < .01$) (**see Figures 8 and 9**). In contrast, competence ratings of the radicals were not modified when violence was decreasing. A near significant drop from the competence pre-rating to the first (extreme violence) period of play, and a recovery trend in the direction of greater competence as violence decreased (with the rating ending about at the point where it started), was obtained, but none of these changes in ratings reached significance.

Comparison of ratings under conditions of increasing and decreasing violence for period 4 and for period 5 did, however, produce considerable differences. At the end of participation in the simulation, participants who had just experienced extreme violence (in periods 4 and 5) viewed the radicals as much less competent ($p < .01$) than those who had just experienced a gradual lessening of violence. If, at this point, the university had been closed (as several did after extreme violence, and as frequently demanded by radical students), then the moderate students would have left viewing the radicals as rather incompetent.

The results obtained for competence ratings of the radicals then differ from the comparable evaluative ratings. As in the evaluative attitudes, increasing violence took its toll. However, where for evaluative ratings a slight improvement of attitudes toward the radicals became evident when violence decreased, competence ratings did not recover at all. Once violence had been ended (in the view of the moderate participants probably in part due to their own actions -- note their own competence ratings), subjects saw the radicals as somewhat "better"*, but not as more competent. The discrepancy between increasing and decreasing violence for periods 4 and 5 appears to be primarily due to the especially low ratings for the radicals under extreme violence conditions when violence was increasing. [Note, however, that differences between matching violence periods (e.g., 1 vs. 5, or 2 vs. 4) for increasing vs. decreasing violence conditions did not reach significance.]

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* "Better" here refers to the obtained evaluative differences between first and fifth periods, not to comparisons of the fifth period with the pre-ratings.

Ratings of the Police.

Mean competence ratings of the police obtained in the pre-simulation period averaged 4.84. Police were viewed as more competent than a scale midpoint might suggest. Both increasing and decreasing violence strongly affected perceptions of police competence. A significant interaction F ratio was obtained ($F = 14.75$, 4/376 df, $p < .01$). As violence increased, perceived competence of the police decreased between periods 1 and 2 compared with period 5 ($p < .01$). As violence decreased, perceived competence of the police first decreased from the pre-rating to period 1 (extreme violence) and then increased between periods 1 and 2 as compared to periods 4 and 5 ($p < .01$). The data are shown graphically in Figures 8 and 9.

Comparisons of increasing and decreasing violence conditions for specific periods indicate that the police were viewed as more competent in the increasing violence condition in periods 1 and 2, and in the decreasing violence condition in period 5 ($p < .01$). Corresponding violence periods in the decreasing and increasing violence conditions (e.g., period 1, decreasing violence, and period 5, increasing violence, are both extreme violence periods) did not differ from each other.

In contrast to both administration and radicals, the competence ratings for the police followed the violence levels of the simulation rather closely. When violence was low, and police engaged primarily in protective functions, they were considered competent. Competence ratings dropped sharply, however, when the police became aggressive, using nightsticks and tear gas. In contrast to ratings of the radicals, however, competence ratings of the police did recover after reaching a low point, once violence was again decreasing. Apparently participants perceived some fundamental difference between radicals and police, even though both groups initiated and used violence in their actions against the other. This difference should become even more clear when the joint analysis of police and radicals is discussed below.

Comparison: Administration vs. Radicals.

A three-way ANOVA was utilized to compare the administration and the radical students across conditions of increasing and decreasing violence and across playing periods. The three-way interaction effect was not significant ($F < 1.0$). A significant periods by increasing/decreasing violence effect ($F = 12.94$, 4/376 df, $p < .01$) reflected the common findings in both previous analyses. However, a significant Groups by Periods two-way interaction effect was also obtained ($F = 3.53$, 4/376 df, $p < .01$). Newman Keuls analysis of this interaction indicated that participants decreased their competence ratings of the radicals over time (with the effects of increasing and decreasing violence not considered) while the mean ratings for the administration did not change. In other words, mere exposure to the activities of the radical students resulted in decreasing perceptions of radical competence among the moderate students.

Comparison: Radicals vs. Police.

While the comparison of radicals and administration was concerned with

two inherently different groups -- one engaged in direct violence while the other merely partially controlled a potentially violent agent (the police) -- the comparison between police and radicals was concerned with groups which are more "similar" on the violence dimension. Again a three-way ANOVA was performed, with police and radicals as a within factor in addition to periods (within) and increasing/decreasing violence (between). Again, the three-way interaction did not reach significance ($F = 1.43$). The periods by increasing/decreasing violence effect was significant, as expected ($F = 20.53$, 4/376 df, $p < .01$). As in the comparison of administration and police, a groups by periods interaction was also obtained ($F = 2.48$, 4/376 df, $p < .05$). In addition, the groups main effect was significant ($F = 11.26$, 1/94 df, $p < .01$). Police were viewed as more competent than radicals overall. The competence ratings for police (with increasing and decreasing violence conditions combined) did not change across playing periods. Competence ratings for the radical students decreased (as stated above).

The results obtained for competence of radicals, administration, and police are at times similar to and at times differ from the evaluative attitudes that moderate students had expressed. We may then assume that the meaning of evaluation and competence was indeed different for the subjects who participated in the simulation. A more extensive interpretation of these differences will be presented in a later section of this paper.

7. Strength

Changes in the strength of various groups, their power to gain their desired ends, the strength to inflict injury on the other, and so forth, might occur over time or over events (violence levels). Such changes, if they did occur, would likely affect the degree to which either the winner is supported (bandwagon effect) or the loser is supported (coming to the aid of the underdog), and in turn this might affect attitudes, perceptions of competence, and so forth. It was the intent of the simulation to maintain strength at a constant level, so that other variables would not be affected by this component of the situation. To check on the success of the design, participants' ratings on a seven-point semantic differential scale running from strong to weak were analyzed for each of the groups supposedly participating in the simulation. The ratings of participants for these groups produced no significance. Perceptions of strength, in other words, neither varied over time of participation nor across violence characteristics. Mean strength of all groups was perceived as moderately high (Administration 4.9, Radicals 5.3, Police 5.3 on a seven-point scale).

8. Activity

The design of the simulation permitted active behavior on the part of the radical students and on the part of the police, activity which should increase with increasing violence and decrease with decreasing violence. The administration, on the other hand, was not directly involved in "activism"; in other words, no two-way interaction between periods and increasing/decreasing violence for an administration ANOVA was expected. The obtained F ratio ($F = 1.47$) was not significant. The F ratio for the periods main effect remained less than 1.0, and a marginally significant F ($F = 3.29$, 4/376 df,

$p < .05$) for periods did not stand up under Newman Keuls analysis. In other words, activity scores for the administration were not affected by the experimental manipulations.

Activity of Radicals and Police.

The confrontations which participants observed involved the radicals and the police to the same degree. The amount of video-presentation time devoted to views of police and devoted to students in conflict was approximately equal and, moreover, most "violent" scenes involved simultaneous views of both police and students. However, students engaged in non-violent "activities" in the minimum violence periods, activities like carrying protest signs, handing out leaflets, etc. During these periods, police were either absent or were standing in defensive posture protecting buildings, watching from roof-tops, and so forth. The degree to which moderate students viewed these various activities as either "active" or "passive" may provide some clues about perceptions of hostility and aggression (discussed below). Another interesting question concerns the degree to which activity by the radicals and police in actual confrontation is seen as equivalent.

Ratings on a semantic differential active-passive seven-point scale were obtained at the end of each playing period. The data were analyzed via a three-way mixed design ANOVA with one between (increasing/decreasing violence) and two within factors (periods and radicals/police). A significant groups main effect was obtained ($F = 180.98$, 1/94 df, $p < .01$). Radicals were rated as more active than police. The familiar periods by increasing/decreasing violence interaction was also highly significant ($F = 78.21$, 4/376 df, $p < .01$). The three-way interaction effect also reached significance ($F = 25.69$, 4/376 df, $p < .01$). A Newman Keuls post hoc analysis was based on that interaction. The data are shown in graphic form in Figure 10.

A view of Figure 10 shows a number of effects with some clarity: (1) Radicals are generally viewed as more active than police. (2) Increasing and decreasing violence affects the ratings of police more than it affects the ratings of radicals (reflected in a $F = 9.12$, 1/94 df, $p < .01$ interaction effect). (3) While the ratings of police change with increasing violence, ratings of radicals do not (no Newman Keuls comparisons for radicals in the increasing violence condition are significant). (4) Activity ratings for police decrease more rapidly with decreasing violence than activity ratings for radicals do (Newman Keuls analysis shows considerably more point to point significance for the police ratings). And finally, (5) the activity ratings for police under conditions of increasing violence increase more rapidly than the police activity ratings decrease under conditions of decreasing violence.

The overall pattern suggests that ratings of the radicals have been limited by a ceiling effect. Apparently all "activities" were included in the active-passive scale, since the radicals, whether in the decreasing or increasing violence condition, are rated as extremely active (no differences were found among the six mean activity scores for radicals during periods 1, 2, and 3). The first discrepancy for radicals occurs for period 4. While the ratings for the radicals do not change under conditions of

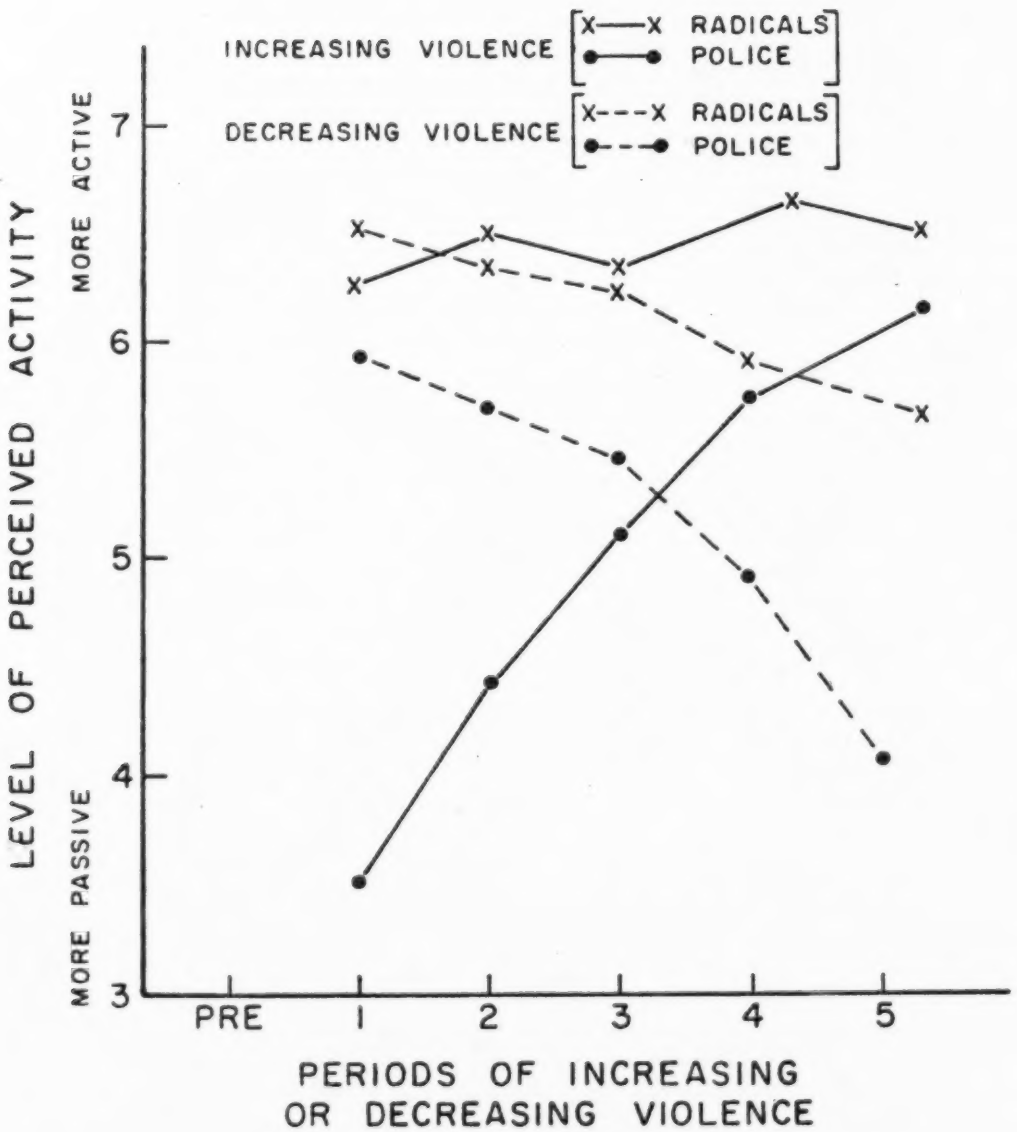

FIG. 10. Effects of Increasing and Decreasing Violence on Perceptions of Activity by Radical Students and by Police.

increasing violence, the activity rating for period 4 in the decreasing violence condition drops far enough so that a significant difference ($p < .01$) is obtained for a period 4 comparison between increasing and decreasing conditions. That discrepancy is maintained for period 5 ($p < .01$) and both periods 4 and 5 under decreasing violence conditions differ ($p < .01$) from period 1 in that condition ($p < .01$). The same holds for comparisons of periods 2 and 6 ($p < .01$).

A comparison for the police curves shows the familiar increasing/decreasing violence by periods interaction (simple interaction effect analysis for police data only produced an interaction F ratio of 69.63, 4/376 df, $p < .01$). However, there are also some more unusual findings. Comparison of parallel violence periods for the two curves shows that activity ratings are lower ($p < .01$) for period 1 for increasing violence compared with period 5 for decreasing violence (minimal violence). The same holds for comparisons of period 2 for increasing violence compared with period 4 for decreasing violence. The remaining parallel periods do not differ.

It appears as though experiencing conditions of extreme violence first has modified the participants' views of "activity." For the radicals, peaceful protest activities are viewed as less active than they would be if they occurred before any extreme violence was seen. On the contrary, police absence or defensive presence is considered more active when participants have experienced police violence than when they have not. It is as though participants were saying: even though we don't see them, we did see what they did before and they are probably still active. On the other hand, viewing the more peaceful activities of the radicals during the later low violence periods may have been reassuring. They were, after all, visible and not engaged in what might have become defined as "real" activity -- hostile acts and aggression. To what degree "activity" in this way translates into hostility and aggression will be discussed below.

9. Hostility

There is no question that all groups supposedly participating in the experimental simulation expressed hostility. Radicals were hostile toward the administration and the police and vice versa. Even though violence decreased and increased, the basic positions of the different groups did not change, and the implied and expressed hostility in the statements made by these groups also did not change. Even in the period of least violence, the administration was stating that "further interference with normal university life would not be tolerated," and the radical students announced that their feelings about their own future aggressive actions toward the administration were best characterized by the words "there is much more to come."

The question we may ask is: to what degree was hostility perceived as a point of view, a state of mind, an intent of future hostile action (e.g., aggression), and to what degree was it perceived as a function of hostile actions. If the former was the case, all groups should have been perceived as hostile, no matter what the level of actual violence (since the hostile intent remained throughout the simulation). If, on the other hand, hostility was perceived only when it was directly expressed in actions, then perceptions of hostility should vary with increasing and decreasing violence.

The administration, of course, did not engage in violence directly. The data for this group, then, cannot be viewed as a direct test of the conflicting views expressed above. Consequently, these data were analyzed in a separate ANOVA. In general, the administration was viewed as more hostile than friendly (mean score on a seven-point scale for all conditions was 3.327). Increasing violence had no effects on the ratings. In the two periods of lowest violence for the decreasing violence condition, participants rated the administration as somewhat more friendly (interaction $F = 14.716$, 4/376 df, $p < .01$). Again, the data suggest that decreasing violence tends to "help" the administration, while increasing violence does not particularly injure its reputation among the students. It should also be noted that decreasing violence had an effect even though (1) the administration did not directly engage in violence, and (2) verbal hostility by the administration toward the radicals continued. This finding seems to suggest that perceptions of hostility or friendliness may be more directly tied to actions than to words -- a finding which, if borne out in the analysis of data obtained for radicals and police, should reproduce the interaction effect of periods by increasing/decreasing violence.

Data analysis for ratings of the radical students on the friendly-hostile scale produced the periods by increasing/decreasing violence interaction ($F = 22.62$, 4/376 df, $p < .01$). The data are shown in graphic form in Figure 11. The radical students were perceived as rather hostile. Their mean hostility score was 2.829 on a seven-point scale with 1 as hostile and 7 as friendly. Even the hostility score for the lowest violence period under conditions of decreasing violence remained well below the scale midpoint (3.45) in the hostile direction. After the first, second, and third playing periods, ratings of radicals under increasing and decreasing violence conditions did not produce differences in hostility perception. Only when violence had decreased sharply in one condition (periods 4 and 5, decreasing violence) and was increasing sharply in the other did differences emerge. The radicals were perceived as less hostile ($p < .01$) in the decreasing violence condition as compared to the increasing condition for periods 4 and 5. Similar differences were obtained for comparisons among periods for increasing violence (periods 1 and 2 vs. period 5, $p < .01$) and for the decreasing violence conditions (periods 1 and 2 vs. periods 4 and 5, $p < .01$). The radicals were viewed as more hostile when violence was at its maximum than when it was at a minimum. A relatively unusual finding should be noted here, a finding which may in part be due to the rather negative (hostile) perceptions of the radicals to begin with. These data (cf. Figure 11) are one of the rare cases where the radicals are benefiting from decreasing violence. Perceived radical student hostility for the lowest violence period in the decreasing violence condition is below ($p < .01$) the perceived hostility level of the equivalent violence condition for increasing violence, as well as below the other final and first period perceived hostility scores in either condition. The benefit gained may not be substantial in terms of the absolute level of hostility perception (the radicals are still viewed as more hostile than friendly), but the degree of hostility perception has greatly changed. A word of caution should be added. This discussion assumes that a perception of being "friendly" rather than "hostile" is desirable. In terms of the strategy employed by some radical groups, this perception may at certain times be rather undesirable, particularly if hostility is seen as a means to obtain certain goals. As long as such a strategy holds, decreasing violence may not be viewed as "advantageous" by the radicals.

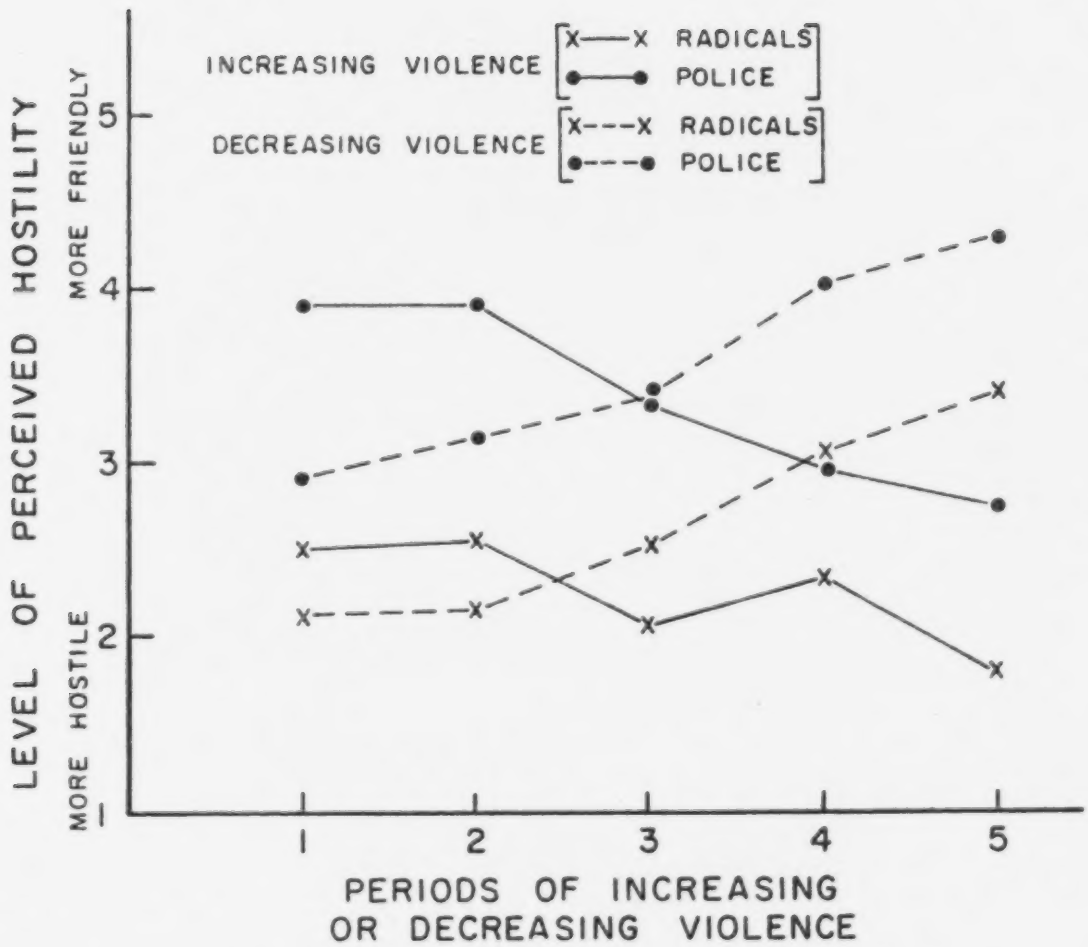

FIG. 11. Effects of Increasing and Decreasing Violence on Perceptions of Hostility by Radical Students and by Police.

Ratings of police hostility again produced the periods by increasing/decreasing violence interaction ($F = 42.18$, 4/376 df, $p < .01$). The data are presented graphically in Figure 11. The police were viewed in general as moderately hostile (mean score was 3.138). Newman Keuls analysis indicated that periods 1 and 2 in the increasing violence condition differed from periods 4 and 5 ($p < .01$) and period 3 differed from period 4 ($p < .05$) and period 5 ($p < .01$). In the decreasing violence condition periods 1, 2, and 3 differed from periods 4 and 5 ($p < .01$) and period 1 differed from period 3 ($p < .05$). Increasing violence produced increasing perceptions of police hostility and decreasing violence produced decreasing perceptions of police hostility. Equivalent violence periods in the decreasing and increasing violence conditions did not produce discrepant perceptions. Periods 1, 2, 4, and 5 differed from each other when increasing and decreasing violence conditions were compared ($p < .01$). The results represent a near perfect interaction of the two factors, suggested by the fact that both main effect F ratios remained below 1.0. Police violence, then, was closely associated with perceived police hostility. It should be noted, however, that mean values on the friendly-hostile scale were generally in the hostile half of the seven-point scale. Only for the fourth and fifth (least violent) periods in the decreasing violence condition were the police perceived as slightly more "friendly" than hostile. Means for periods 1 and 2 in the increasing violence condition remained just below the scale midpoint (3.92).

For the police, then, hostility was not tied to statements of intent, a finding that should not surprise the reader since the police themselves made no statements. All verbal pronouncements were made in the name of the administration. Another finding of interest is the absence of a benefit (such as that obtained by the radicals) from decreasing violence. Apparently the police were not seen as a group to which may be ascribed any characteristics which were not specifically displayed, a finding that would be in agreement with the results discussed earlier in the attribution of causality and responsibility analysis.

A comparison of radicals and police might be useful at this point. Who is viewed as more hostile? A three-way ANOVA with the additional within factor of radical students vs. police was performed. The three-way interaction effect was not significant ($F = 1.97$). A periods by increasing/decreasing violence interaction ($F = 57.56$, 4/376 df, $p < .01$) reflected the same interactions obtained in the separate analyses for radicals and for police. The other interactions did not produce significance. A groups main effect for the radicals vs. police factor resulted in an F ratio of 63.94 (1/94 df, $p < .01$). The radicals were viewed as consistently more hostile than the police. The size of the main effect F ratio is striking, particularly if one considers that both radicals and police did engage in considerable violence, that the violence was shown on television, and that three students died of injuries after being shot by police weapons. Only one of the law enforcement officers was injured by a bullet in the arm. The results obtained here reflect the differences which were discussed earlier with regard to attribution of causality and responsibility. Apparently the students were viewed as more responsible for whatever happened, and consequently hostility was viewed as more inherent in them. The police were apparently viewed as more "responsive to" than as "originating" the hostilities.

10. Aggression

In contrast to hostility, aggression represents an action more than a state of mind. Aggression by both students and by the police occurred during the periods of greater violence in the simulation. The administration was not directly aggressive, except that it played a part in calling the police forces onto the campus.

An ANOVA analysis for aggressiveness-defensiveness ratings for the administration produced no significant effects. The mean aggressiveness rating for the administration was an intermediate 3.721 on a seven-point scale. This finding is not surprising in the light of the lack of actual direct aggressiveness (see above) (e.g., as observed on the TV screen) by the members of the administration.

The ANOVA for aggressive-defensive ratings of the radical students resulted in a periods by increasing/decreasing violence interaction effect of $F = 8.838$, 4/376 df, $p < .01$. The data are shown in graphic form in Figure 12. These results were primarily produced by the decrease in perceived aggressiveness of the radical students under conditions of decreasing violence. Newman Keuls analysis indicated that the radicals were viewed as more aggressive in the first and second periods (under conditions of decreasing violence) than in the fifth (lowest violence) period ($p < .01$). The absence of a significant increase in perceived aggressiveness under conditions of increasing violence is most likely due to a ceiling effect. Ratings of radical students' aggressiveness were already so high during the first period of play in either the increasing or decreasing condition (mean score 6.083 on a seven-point scale) that much movement in the direction of greater perceived aggressiveness was not possible.

Analysis of the data obtained for the police produced an interaction F ratio of 16.11 (4/376 df, $p < .01$). The data are graphically shown in Figure 12. Ratings of police aggressiveness were near the scale midpoint (overall mean 3.840 on a seven-point scale), so that a ceiling effect could not occur. The results of the analysis indicated that the police were seen as more aggressive when violence increased (Newman Keuls comparisons of periods 1 and 2 with periods 4 and 5 were significant beyond the .01 level). Decreasing violence resulted in perceptions of the police as more defensive (period 1 vs. periods 4 and 5, significant beyond the .01 level).

The police were not only viewed as less hostile than the radicals, they were also viewed as less aggressive. This difference was obtained by subjecting the data to a three-way ANOVA with radicals vs. police as an additional factor. A groups main effect produced an F of 148.95 (1/94 df, $p < .01$). The radicals were consistently viewed as more aggressive than the police. The difference is clearly visible in Figure 12. Mean scores of aggressiveness-defensiveness for radicals and police do not even overlap for any condition or period. The three-way ANOVA also resulted in a three-way interaction effect ($F = 3.07$, 4/376 df, $p < .05$) produced by the lack of increase in aggressiveness ratings for the radicals under conditions of increasing violence. Since this result is likely due to a ceiling effect rather than to a meaningful difference in the data, the significance will be disregarded.

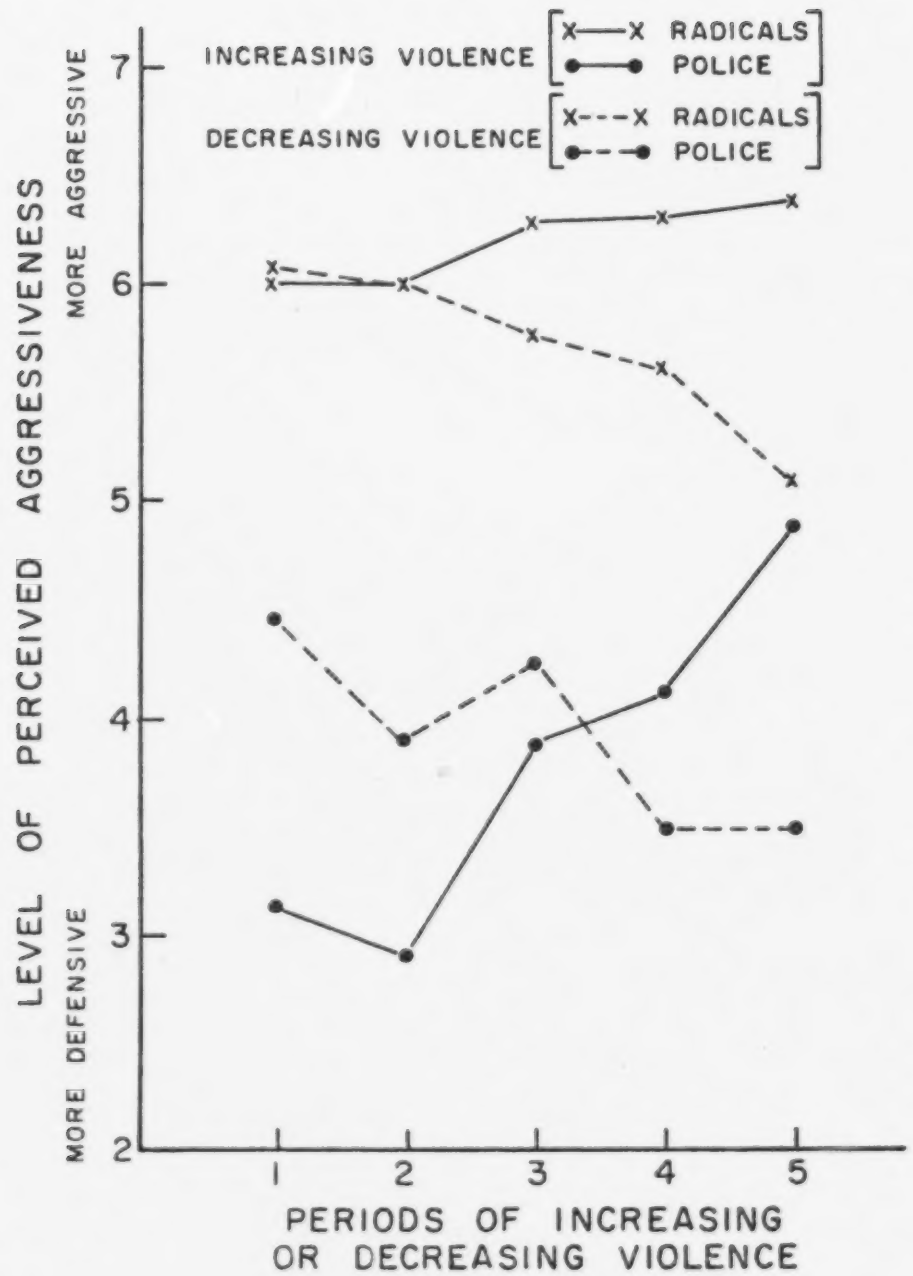

FIG. 12. Effects of Increasing and Decreasing Violence on Perceptions of Aggressiveness by Radical Students and by Police.

11. Support for the Groups in Conflict

The previous analyses have been concerned with the way the participants in the experimental simulation perceived the administration, the radical students, and the police. We have seen that the radicals were seen as more causal, more responsible, were less well liked, viewed as more aggressive, and so forth, compared to the administration. As a rule, then, the moderate students who participated in the simulation appeared to lean toward the side of the administration. Even when violence became extreme, less negativity appeared to be expressed toward the administration or, for that matter, toward the police than was expressed toward the radicals. For that matter, as we have seen, attributions of either causality or responsibility toward the administration (including police actions ordered by the administration) did not change appreciably with increasing or decreasing violence. These findings would lead one to speculate that the participant in the simulation strongly supported the administration, and strongly refused to support the radicals. One would probably not expect any differences between the support for the administration expressed privately and the support given by the group as a whole (or perceived as given by the group). What results for groups and individual support were actually obtained?

Participants responded to the question: "To what degree do you think various groups currently support the position of...." (the radical students, or the administration), and "to what degree do you support the position of...." (the radical students, or the administration). Among the groups listed was "your group," so that comparisons between responses for participants' group and for their private support could be made.

Group Support.

Analysis of variance for group support of the radical students resulted in an interaction (periods by increasing/decreasing violence) F ratio of 12.85 (4/376 df, $p < .01$). Main effects were not significant. The results are presented graphically in Figure 13. Post hoc Newman Keuls analysis indicated that group support for the radicals decreased with increasing violence. Support ratings for periods 1 and 2 were higher than ratings for periods 4 and 5 ($p < .01$), and period 3 differed from period 5 in the same direction ($p < .01$). Decreasing violence had a much smaller effect on group support. Differences were only obtained for comparison of periods 2 and 5. Support for the radicals was greater in period 5 than in period 2 ($p < .05$). Mean group support for the radicals was a moderately low 3.042 on a seven-point scale, in other words, an entire scale point below the scale midpoint.

Analysis of variance for group support of the administration resulted in an interaction (periods by increasing/decreasing violence) F ratio of 4.66 (4/376 df, $p < .01$). The results are presented graphically in Figure 13. Post hoc Newman Keuls analysis indicated that group support for the administration was not affected by increasing violence, and that decreasing violence produced increased support ratings for the administration (period 1 vs. periods 5 and 6, $p < .01$). Mean support ratings collapsed across both conditions and across all periods was 3.725 on a seven-point scale -- slightly below the scale midpoint.

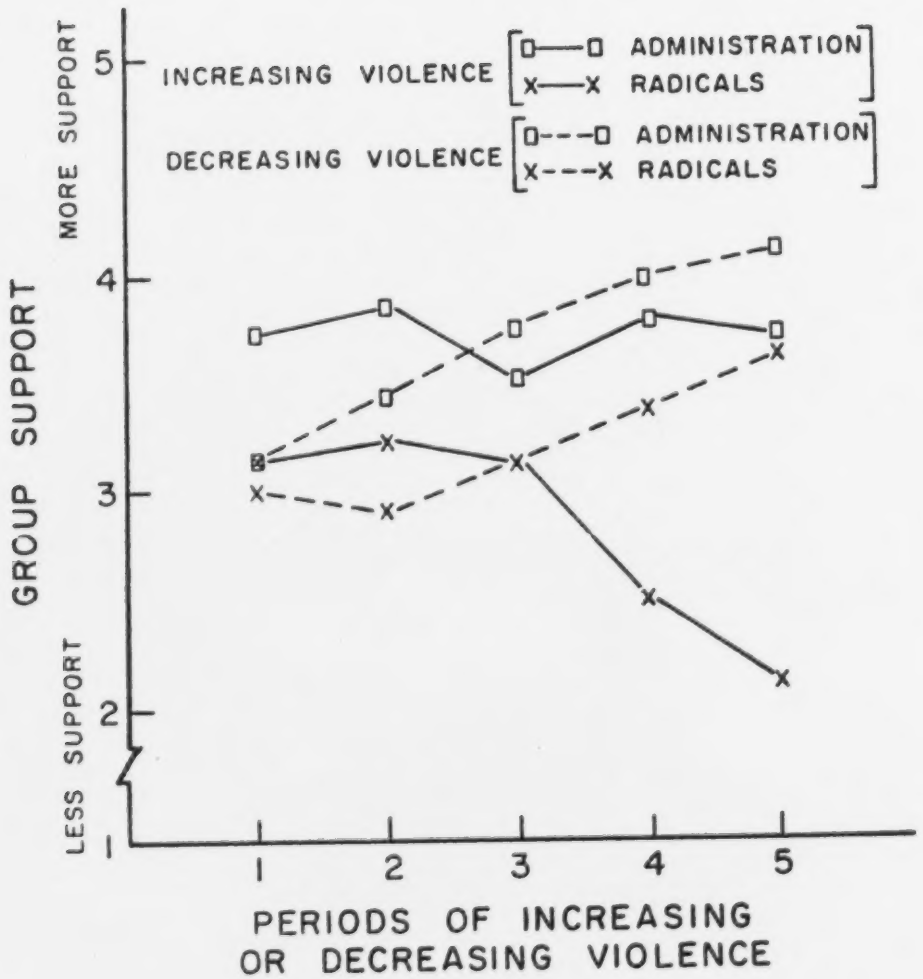

FIG. 13. Effects of Increasing and Decreasing Violence on Group Support for the Administration and the Radical Students.

A comparison of support ratings for the administration and the radicals via a three-way ANOVA indicated that the administration received more support from the participants than the radicals ($F = 9.91$, 1/94 df, $p < .01$, main effect). In addition, the three-way ANOVA also resulted in the expected periods by increasing/decreasing violence interaction ($F = 14.77$, 4/376 df, $p < .01$).

Individual Support.

Analysis of variance for individual support ratings were also gathered for the radical students and for the administration. ANOVA of the ratings of radical students again resulted in a periods by increasing/decreasing violence interaction ($F = 17.60$, 4/376 df, $p < .01$). The data are shown in graphic form in Figure 14. Post hoc Newman Keuls analysis demonstrated that personal support for the radicals decreased with increasing violence (periods 1, 2, and 3 indicated greater support beyond the .01 level than periods 4 and 5). Decreasing violence had only minor effects on personal support (personal support for period 5, the minimum violence period, was greater than for period 2, the second most violent period). The mean level of personal support for the radicals was a rather low 2.975 on a seven-point scale, compared with the mean level of 3.042 in the group support rating.

Individual support ratings for the administration were again analyzed via ANOVA. The results are presented in Figure 14. The interaction F ratio in this case was marginally significant ($F = 2.71$, 4/376 df, $p < .05$). Post hoc Newman Keuls analysis indicated that increasing violence had no effect on personal support ratings for the administration. Decreasing violence produced greater personal support for the administration (period 1 differs from periods 3, 4, and 5, $p < .05$). Period 5 in the decreasing violence condition resulted in highest mean support ratings, significantly above the equivalent period (period 1) in the increasing violence condition ($p < .05$). Again, the administration benefited from decreasing violence.

ANOVA three-way comparisons of periods, increasing/decreasing violence, and differences in ratings of administration and radicals did not produce a significant administration vs. radicals main effect ($F = 3.13$, 1/94 df). However, in addition to the expected periods by increasing/decreasing violence interaction ($F = 13.98$, 4/376 df, $p < .01$), a significant groups by periods interaction was obtained ($F = 6.09$, 4/376 df, $p < .01$). Support for the radicals did not change significantly over time, even though the trend was toward less support in the final periods of the simulation. However, support for the administration increased over time (period 1 vs. periods 4 and 5, $p < .05$). Even though the degree of support for the radicals and for the administration was nearly identical during the first playing period (mean radicals = 3.064, mean administration = 3.073), personal support during the last playing period was quite discrepant (Newman Keuls difference $p < .01$, with means of 2.813 for the radicals and 3.708 for the administration). Time spent as a participant in the simulation, in other words, also worked in favor of the administration.

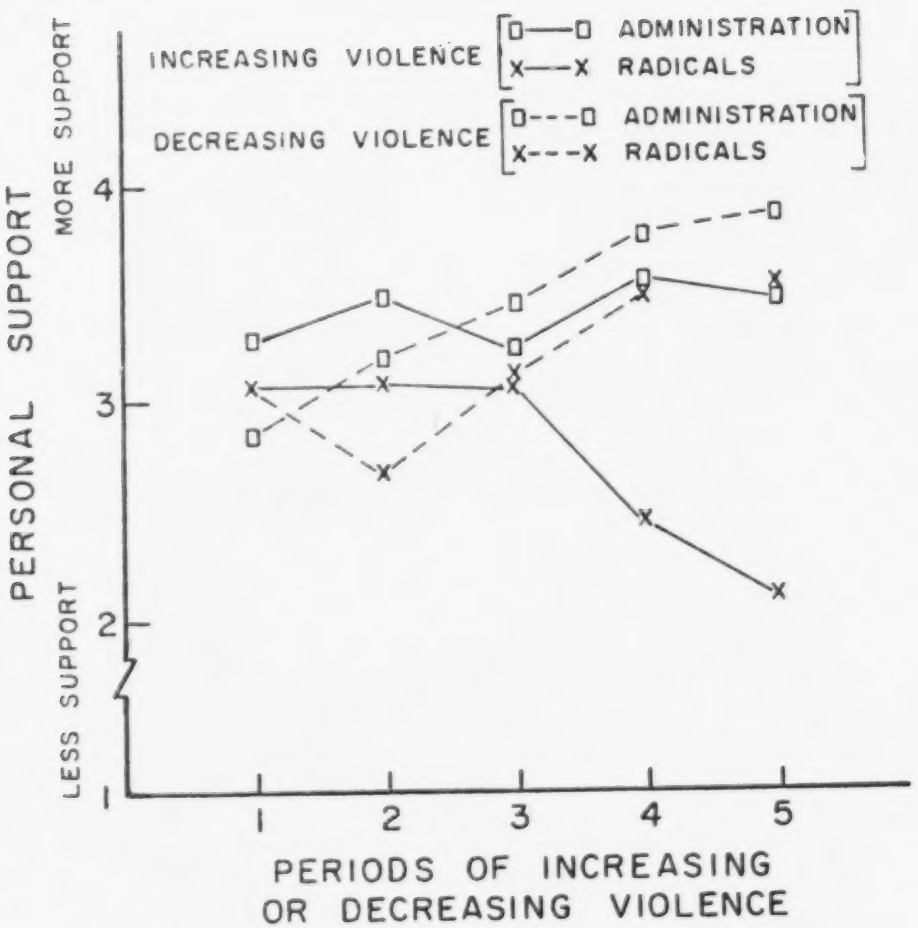

FIG. 14. Effects of Increasing and Decreasing Violence on Personal Support for the Administration and the Radical Students.

Comparisons of Group and Individual Support.

The previous discussion has treated group support as seen by each group member and his personal support as separate analyses. It might be quite interesting to see whether group and individual support did differ. In other words, were participants operating according to a group norm which did not exist, but which they followed because they believed that it did exist? Data collected by Kenneth Berrien (unpublished) shortly before his death suggested that the radicals at Columbia University did not personally support their movement as much privately as they supported it in public (and as they believed their associates were supporting it). If a parallel finding were obtained here, then moderate students (who would be somewhat more supportive of the administration than of the radicals) might support either of the two opponents (but particularly the administration) less than they would view their group as supporting them.

To test for this potential effect, ANOVA analyses were completed for the radicals and for the administration (separately) with periods, increasing/decreasing violence, and group vs. personal support as three factors. A significant main effect ($F = 28.223$, 1/94 df, $p < .01$) for differences between group support and personal support for the administration was obtained. Group support for the administration was viewed as higher than personal support. Other significant effects in this analysis did not contribute knowledge beyond that discussed earlier. ANOVA comparisons of group and personal support for the radical students resulted in no significance for the relevant main effect or any interaction effects for this factor. An insignificant trend ($p < .10$), however, suggested the same potential phenomenon. Participants' mean scores of support for the radicals suggested a potential of less personal than group support.

DATA SUMMARY AND SOME OVERALL COMPARISONS

The rather large number of individually reported findings may make it somewhat difficult for the reader to recall all the results for purposes of comparison. To aid in this task, a table of results is presented (see Table 1). This table does not include all the data we have reported earlier, but it does contain all those that lend themselves to comparison with other relevant data. Table 1 lists dependent variables vertically and independent variables horizontally. Each cell presents the most important findings for the particular relationship between a dependent and an independent variable. Most cells list two findings (except those for time, comparisons among variables, and the violence perception variable). The first (upper) listing is concerned with the level* of the participants' responses on the scale used. The second (lower) listing indicates the direction of change (if any).

Specific results, their meaning and potential implications, have been discussed earlier and need not be repeated here. Before some overall comparisons of the data will be discussed, the reader should again be reminded that the data were collected on a campus that has tended to be politically

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* No level is listed for perceived violence since the mean responses of subjects covered the entire seven-point scale.

SUMMARY OF SOME OF THE RESULTS REPORTED IN THIS PAPER

Dependent Variable	Effects of Increasing Violence on Response to Radicals	Administ	Police	comparison of R.&A.	R.&P.	Effects of Decreasing Violence on Response to Radicals	Administ	Police	comparison of R.&A	R&P.	Effects of Time in the Simulation on Response to Radicals	Administ	Police
Perceived Violence by	inc	-	inc	-	R > P	dec	-	dec	-	R = P	none	none	none
Support by Administr.of	low con	vh con	-	R < A	-	vl con	vh con	-	R < A	-	none	none	-
Support by Radicals of	vh con	vl con	-	R > A	-	vh con	vl con	-	R > A	-	none	none	-
Attribution of Causality to	high inc	mh con	low inc	R > A	R > P	high con	mh con	vl dec	R > A	R > P	-	-	-
Attribution of Responsibility to	high inc	mh con	low inc	R > A	R > P	high con	mh rcon	vl dec	R > A	R > P	-	-	-
Attr.of Causality vs. Attr. of Responsibility	Respon > Caus	Respon > Caus	Respon =Caus	-	-	Respon > Caus	Respon > Caus	Respon = Caus	-	-	none	Re > Cau 1st Period	none
Favorable Evaluative Attitude towards	ml* dec	int* con	mh* dec	R < A	R < P	ml* con	int* inc	int* con	R < A	R < P	con	inc	con
Competence of	int dec	int con	mh dec	R = A	R < P	int con	int inc	mh inc	R = A	R < P	dec	con	con
Strength of	mh con	mh con	mh con	R = A	R = P	mh con	mh con	mh con	R = A	R = P	-	-	-
Activity of	vh** con	mh con	mh inc	R > A	R > P	vh dec	mh con	mh dec	R > A	R > P	dec	con	inc
Hostility of	vh inc	mh con	mh inc	-	R > P	vh dec	mh dec	mh dec	-	R > P	none	none	none
Aggression by	vh** con	int con	int inc	-	R > P	high dec	int con	int dec	-	R > P	dec	none	inc
Group Support for	low dec	int con	-	R < A	-	ml rcon	int inc	-	R < A	-	con	inc	-
Individual Support for	low dec	int con	-	R < A	-	ml rcon	int inc	-	R = A	-	con	inc	-
Group Support vs. Individual Support	Gr.S.= Ind.S.	Gr.S > Ind.S.	-	-	-	Gr.S.= Ind.S.	Gr.S.> Ind.S.	-	-	-	none	none	none

vh= very high, h = high, mh = moderately high, int = intermediate, ml = moderately low, l = low, vl = very low, con = constant
inc = increasing, dec = decreasing, rcon = relatively constant, - = not tested, *=compared to pre-ratings, **= limited by ceiling effect.

conservative and inactive. A national news magazine described Purdue a few years ago as a "hotbed of rest." There have been some disturbances since, state police have been on the campus, and several students were arrested and suspended (these actions occurred prior to the time of this research). Nonetheless, the campus has been much calmer than most of the other "Big Ten" campuses, and most administrators seem to expect it to stay that way. This conservative tendency certainly can be expected to color the results we have obtained. The rather favorable views of the police, for example, may or may not have been expressed if the participants had been drawn from student populations at Berkeley, Columbia, and so forth. In other words, it appears that the "level" of the responses to the various groups in conflict may not be the same if this research had been carried out elsewhere. The direction of change, however, would likely hold in any case.

It probably need not be repeated in detail that the manipulation checks produced the desired results, and that several of the findings are in agreement with data obtained in the "real world" by survey research reported from other campuses. In other words, it appears that one can have some amount of confidence in the generalizability of the data that were obtained in this research.

The manipulation itself was one of increasing and decreasing violence -- in other words, one that might fit with the predictions of a conflict spiral model. The use of this model for determining the sequence of simulated events does not imply that the authors believe in the accuracy of this model; on the contrary, the structural change model (Coleman, 1957; Pruitt & Gahagan, 1971) appears much more applicable. However, we were here interested in the specific effects of violence on some of the components of perceptions and behavior that the structural change model advocates. Obtaining structural change (or the perceptual basis which would permit structural change) by inducing structural change would merely imply the creation of a self-fulfilling prophecy.

The use of increasing and decreasing violence as the experimental manipulation is subject to some further limitations. Conflict does not necessarily occur in spiraling fashion, and "over-reactions" do not necessarily increase conflict, just like "under-reactions" do not necessarily decrease it. Other sequences (e.g., sequential ups and downs, with intermittent periods of relative quiescense) do occur, particularly if the conflict is long and drawn out over several months or even an entire semester. The research reported here is probably most applicable to the first emergence of serious conflict and/or serious violence, before the structure of alliances on the campus has been drastically modified. It is there where these data should find the most meaningful application.

A view of Table 1 suggests that participants' views of the three groups (administration, radicals, and police) were relatively consistent. The most striking result is the lack of change in perceptions of the administration under conditions of increasing violence. The administration did not drop in perceptions of competence; it was not evaluated less favorably; it did not lose any degree of support (at least not significantly). Of course, the administration did not engage in the violence directly, and one might assume that the violence may consequently not have been blamed on the administration. That, however, was not the case. In attributions of causality, and even more in attributions of responsibility, the

administration had to accept a more than average share of the blame (even though the participants assigned even more blame to the radicals). Further, the potential negativity that might have developed was not shifted to the police; the police were viewed even more favorably (and as more competent) than the administration. In addition, the police had to accept less than their share of causality and responsibility attributions. The only explanation for this "positivity" toward the administration can be subjects' own position at the beginning of the simulation. Purdue students have not had many gripes about the administration at their own university. Most are preparing (many as engineers or as members of agricultural professions) for careers in the establishment, and they felt closer to the establishment once they did choose sides (as suggested by structural change theory). The supposedly "typical" radical student is not widely represented at Purdue University.

A second interesting finding is the differential shift in perceptions and attitudes if one compares radicals and administration. Let us first view the effects of increasing and decreasing violence. In most cases, the radical suffered from increasing violence: the ratings of him became less favorable, he was seen as more hostile, less competent, and he received less support. However, if violence decreased, he did not gain what he lost in the opposite direction. For example, attitudes and ratings of competence did not improve. The opposite was true of the administration. While the participants' views of that group did not change at all when violence was increasing, several improvements of their status were recorded when violence was decreasing. Attitudes and competence ratings increased, and support for the administration also increased. Similar findings were expressed in the combined ratings for increasing and decreasing violence -- in other words, for simple effects of time in the simulation. While attitudes toward the radicals remained constant over time, attitudes toward the administration became more favorable. While the perception of administration competence remained constant, the radicals were viewed as less competent in the later playing periods. This occurred even though the radicals were viewed as less active and less aggressive over time. The conclusion that one might reach from this research is that the radicals are disliked once violence has occurred, and the administration (at least in the long run) gains considerably over the radicals (although it does not gain in comparison to its original position). If this conclusion holds, then the advice to the administration appears very clear: the closing of a university at the point of highest violence is very bad politics. This is the point where both the administration and the radicals are viewed least favorably (even though the discrepancy is greatest at this point). Once the conflict decreases again, the administration is likely to regain its previous favor with the students, yet the radicals cannot regain that stature.

A word of warning should be introduced. As stated previously, these results may in part be due to the conservatism of the students, and their "attachment" to the establishment (i.e., here the administration). In other words, the above interpretation may indeed hold for Purdue and other similar schools but may have to be modified for application in schools with less establishment-oriented students. If, as we suggested above, polarization would place the "moderate" student in alliance with the radicals (as it might occur at more radicalized campuses), then the students' perceptions of the administration for this research may well be similar to participants'

perceptions of the radicals there. In other words, the group which students view as further from their own position may be decreased in valuation if things get unpleasant, simply since the blame is placed on that group to a greater degree. Placing the blame on that group would permit righteous indignation (Pruitt & Gahagan, 1971), negativity, and aggression. If that were true, then the positions of radicals and administration might invert, depending on the stand of the "moderate," and the advice given above would have to be similarly inverted. Further research should explore the potentially conflicting alternatives.

Another finding of interest is the difference between the way participants felt their group saw the radicals (and to some degree the administration) and the way they themselves felt. The discrepancy was not great, but it was consistent and highly significant. It should be noted that "group views" and "individual views" were obtained from the same person, suggesting a common distortion. The discussion above mentioned that students might get "caught up" in the activities, and learn to redefine themselves as "radicals," given the opportunity. The participants in this research may have -- given time -- redefined themselves as more conservative. However, there was an insignificant trend in the other direction also; the participants as individuals were somewhat less enthusiastic about the administration as well. Whether viewed in terms of social comparison theory (Festinger, 1954) or in terms of the findings of Feldman and Newcomb (1969a, 1969b), this finding suggests that shifts in individual support for one group or the other can occur, given the necessary group climate (in a group in which all members are less supportive than they all claim to be to each other). How quickly this change in support works, i.e., how quickly the individuals would come to accept the supposed group norms, is not known. Whether the membership (or common experience) in a group can shift behavior toward radicalization (or establishmentalization, to coin the opposite word) in a few hours or days cannot be determined from this research. However, some suggestions can be made. To avoid shifts in attitudes and support in the direction of a supposed, but unreal, group consensus, communication appears necessary. An administration that carefully and continuously communicates its own position and sees to it that the students remain aware of the average opinion of the students' peers may have less to fear than an administration which permits the radicals to persuade the other students that the general feelings (group norm) toward the administrators are highly negative.

As long as students' attitudes are shifted step by step (within the latitude of acceptance at any point) by either the administration or the radicals, student opinion can probably be changed drastically over a yet unspecified period of time. Polarization, in these terms, seems quite possible. Shifts toward polarization may be even more rapid if attribution of responsibility to either or both groups is higher than attribution of causality. Such a discrepancy would make it more easy to assign either blame or credit.

Another overall impression may be gained by viewing the results for the police. Apparently the police forces (including the National Guard) were viewed as agents, and were made responsible only to the degree to which they were causal, and even that only to a small extent. The various ratings of the police followed the effects of increasing and decreasing

violence more closely than the ratings of either radicals or administration. Time effects were absent or constant except for a perception of increased activity and aggression over time. That, however, did not influence attitudes or perceptions of competence. It may be that the police would fit the conflict spiral model rather well. To some degree, of course, these results may be colored by the rather favorable attitudes which Purdue students tend to have toward police (cf. Nogami, 1972). On the other hand, the results may well be due to a view of the police (particularly by the moderate) that does not look at them primarily as independent agents, the way many radicals have tried to picture them (cf. the discussion of this issue by Pruitt and Gahagan [1971], as reported earlier in this paper).

The data obtained in this research have pointed toward a number of characteristic views which the moderate student might hold during the early phases of campus unrest on any particular campus. Knowledge of these perceptions can provide guidelines for administrative action which would help diminish or avert violent confrontations. The data obtained here are (as far as survey research has been reported) in agreement with the few conclusions of survey researchers.

RECOMMENDATIONS FOR FUTURE RESEARCH

The research reported here is the first attempt to apply an experimental simulation technique to campus unrest, or for that matter to any "social problem." While the technique has been very fruitful in more basic research, it has not been previously tested in a more applied setting.

The data are greatly encouraging. Manipulation checks produced perfect results. Data, where comparable with survey research on campuses around the country, checked out well. Involvement of the participants in the simulation produced the "realistic" simulation for which Drabeck and associates (see above) have called. The results appear eminently applicable.

It would appear very useful to extend this research technique to related questions of unrest. While this research has tapped the characteristics of the moderate student, we have not yet applied it to the radical or the conservative. Although the technique has been used on a relatively conservative campus, it has not been applied to a location where students are more "radicalized." The design has used a simple increasing vs. decreasing (conflict spiral) manipulation, and it has not yet looked at the effects of structural change in inter-group conflict. In other words, the technique appears very useful for further research on this and related topics.

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